Analytical Data Package Prepared For

Pacific Northwest National Lab

Radiochemical Analysis By

STL Richland STLRL

2800 G.W. Way, Richland Wa, 99354, (509)-375-3131.

Data Package Contains _____ Pages

Report Nbr: 33172

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W04969	W06-007	B1JLV8	J6G210334-1	H9RQC1AA	9H9RQC10	6207534
		B1JLV8	J6G210334-1	H9RQC1AC	9H9RQC10	6207536
		B1JM76	J6G210334-2	H9RQJ1AA	9H9RQJ10	6207533
		B1JM76	J6G210334-2	H9RQJ1AC	9H9RQJ10	6207534
		B1JM76	J6G210334-2	H9RQJ1AD	9H9RQJ10	6207536
		B1JM76	J6G210334-2	H9RQJ1AE	9H9RQJ10	6207537
		B1JM76	J6G210334-2	H9RQJ1AF	9H9RQJ10	6207538
		B1JLV5	J6G210334-3	H9RQT1AA	9H9RQT10	6207534
		B1JLV5	J6G210334-3	H9RQT1AC	9H9RQT10	6207536
		B1JLV3	J6G210334-4	H9RQ01AA	9H9RQ010	6207534
		B1JLV3	J6G210334-4	H9RQ01AC	9H9RQ010	6207536
		B1JLV3	J6G210334-4	H9RQ01AD	9H9RQ010	6207537
		B1JLV3	J6G210334-4	H9RQ01AE	9H9RQ010	6207529
	G06-007	B1JK94	J6G210337-1	H9RRF1AA	9H9RRF10	6207536
		B1JK82	J6G210337-2	H9RRN1AA	9H9RRN10	6207536

Comments:

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SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W04969	G06-007	B1JK80	J6G210337-3	H9RRR1AA	9H9RRR10	6207536
		B1JK90	J6G210337-4	H9RRV1AA	9H9RRV10	6207536
		B1JK92	J6G210337-5	H9RR01AA	9H9RR010	6207536
		B1JK84	J6G210337-6	H9RR21AA	9H9RR210	6207533
		B1JK84	J6G210337-6	H9RR21AC	9H9RR210	6207534
		B1JK84	J6G210337-6	H9RR21AD	9H9RR210	6207536
		B1JK84	J6G210337-6	H9RR21AE	9H9RR210	6207539
		B1JK84	J6G210337-6	H9RR21AF	9H9RR210	6207540
		B1JK88	J6G210337-7	H9RR91AA	9H9RR910	6207536
	I06-044	B1JH77	J6G210343-1	H9RVF1AA	9H9RVF10	6207533
		B1JH77	J6G210343-1	H9RVF1AC	9H9RVF10	6207537
		B1JH77	J6G210343-1	H9RVF1AD	9H9RVF10	6207529
		B1JH77	J6G210343-1	H9RVF1AE	9H9RVF10	6207532
	A06-007	B1JK31	J6G210350-1	H9RVV1AA	9H9RVV10	6207533
		B1JK31	J6G210350-1	H9RVV1AC	9H9RVV10	6207537
		B1JK31	J6G210350-1	H9RVV1AD	9H9RVV10	6207529
		B1JK31	J6G210350-1	H9RVV1AE	9H9RVV10	6207532
		B1JK27	J6G210350-2	H9RV01AA	9H9RV010	6207533
		B1JK27	J6G210350-2	H9RV01AC	9H9RV010	6207537
		B1JK27	J6G210350-2	H9RV01AD	9H9RV010	6207529
		B1JK27	J6G210350-2	H9RV01AE	9H9RV010	6207532
	I06-047	B1JKT1	J6G220138-1	H9TMV1AA	9H9TMV10	6207533
		B1JKT1	J6G220138-1	H9TMV1AC	9H9TMV10	6207536
		B1JKT1	J6G220138-1	H9TMV1AD	9H9TMV10	6207540
	G06-007	B1JK66	J6G220140-1	H9TM11AA	9H9TM110	6207533
		B1JK66	J6G220140-1	H9TM11AC	9H9TM110	6207534

Comments:

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SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W04969	G06-007	B1JK66	J6G220140-1	H9TM11AD	9H9TM110	6207536
		B1JK66	J6G220140-1	H9TM11AE	9H9TM110	6207539
		B1JK66	J6G220140-1	H9TM11AF	9H9TM110	6207540
		B1JK62	J6G220140-2	H9TM21AA	9H9TM210	6207533
		B1JK62	J6G220140-2	H9TM21AC	9H9TM210	6207534
		B1JK62	J6G220140-2	H9TM21AD	9H9TM210	6207536
		B1JK62	J6G220140-2	H9TM21AE	9H9TM210	6207539
		B1JK62	J6G220140-2	H9TM21AF	9H9TM210	6207540
	I06-048	B1JKV0	J6G220141-1	H9TM71AA	9H9TM710	6207529
		B1JKV0	J6G220141-1	H9TM71AC	9H9TM710	6207532
		B1JKT9	J6G220141-2	H9TM81AA	9H9TM810	6207529
		B1JKT9	J6G220141-2	H9TM81AC	9H9TM810	6207532
		B1JKT6	J6G220141-3	H9TM91AA	9H9TM910	6207529
		B1JKT6	J6G220141-3	H9TM91AC	9H9TM910	6207532

Comments:

SEVERN TRENT STL

STL Richland
2800 George Washington Way
Richland, WA 99354

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Certificate of Analysis

Pacific Northwest National Laboratories
Sigma V Building
Richland, WA 99352

August 31, 2006

Attention: Dot Stewart

SAF Number	:	W06-007, G06-007, I06-044, A06-007, I06-047, I06-048
Date SDG Closed	:	7/21/06
Number of Samples	:	Twenty (20)
Sample Type	:	Water
SDG Number	:	W04969
Data Deliverable	:	45-Day / Summary

CASE NARRATIVE

I. Introduction

Between July 20, 2006 and July 21, 2006, twenty water samples were received at STL Richland (STLR) for radiochemical analysis. Upon receipt, the samples were assigned the following laboratory ID numbers to correspond with the Pacific Northwest National Laboratories (PGW) specific IDs:

PGW ID#	STLR ID#	MATRIX	DATE OF RECEIPT
B1JLV8	H9RQC	WATER	7/20/06
B1JM76	H9RQJ	WATER	7/20/06
B1JLV5	H9RQT	WATER	7/20/06
B1JLV3	H9RQ0	WATER	7/20/06
B1JK94	H9RRF	WATER	7/20/06
B1JK82	H9RRN	WATER	7/20/06
B1JK80	H9RRR	WATER	7/20/06
B1JK90	H9RRV	WATER	7/20/06
B1JK92	H9RR0	WATER	7/20/06
B1JK84	H9RR2	WATER	7/20/06
B1JK88	H9RR9	WATER	7/20/06
B1JH77	H9RVF	WATER	7/20/06
B1JK31	H9RVV	WATER	7/20/06

B1JK27	H9RV0	WATER	7/20/06
B1JKT1	H9TMV	WATER	7/21/06
B1JK66	H9TM1	WATER	7/21/06
B1JK62	H9TM2	WATER	7/21/06
B1JKV0	H9TM7	WATER	7/21/06
B1JKT9	H9TM8	WATER	7/21/06
B1JKT6	H9TM9	WATER	7/21/06

II. Sample Receipt

The samples were received in good condition and no anomalies were noted during check-in.

III. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information, analytical results and the appropriate associated statistical errors.

The requested analyses were:

Gas Proportional Counting
Gross Alpha by method RICH-RC-5014
Gross Beta by method RICH-RC-5014
Strontium-90 by method RICH-RC-5006
Gamma Spectroscopy
Gamma Spec by method RICH-RC-5017
Iodine-129 (LL) by method RICH-RC-5025
Liquid Scintillation Counting
Technetium-99 by TEVA method RICH-RC-5065
Tritium by method RICH-RC-5007
Laser Induced Phosphorimetry
Total Uranium by method RICH-RC-5058

IV. Quality Control

The analytical results for each analysis performed includes a minimum of one laboratory control sample (LCS), one method (reagent) blank, and one duplicate sample analysis. Any exceptions have been noted in the "Comments" section.

QC and sample results are reported in the same units.

V. Comments

Gas Proportional Counting

Gross Alpha by method RICH-RC-5014:
Reduced volumes were analyzed based on elevated screen results for samples B1JLV3, B1JLV8, B1JM76, B1JLV5, B1JK84, B1JK66, B1JK62 and B1JLV8 DUP. B1JK62 does not meet the CRDL due to high dissolved solid which required a smaller aliquot be taken. Other than noted the LCS, batch blank, samples and sample duplicate (B1JLV8) results are within contractual requirements.

Gross Beta by method RICH-RC-5014:
Reduced volumes were analyzed based on elevated screen results for samples B1JLV3, B1JLV5, B1JK84, B1JK94, B1JK66, B1JK62 and B1JLV5 DUP. Samples B1JLV5, B1JK84, B1JK94, B1JK66 and B1JK62 do not meet the CRDL, but their results are greater than the MDA which is greater than the CRDL. Other than noted the LCS, batch blank, samples and sample duplicate (B1JLV5) results are within contractual requirements.

Strontium-90 by method RICH-RC-5006
Batch 6207538
The LCS, batch blank, samples and sample duplicate (B1JM76) results are within contractual requirements.

Batch 6207540
The LCS, batch blank, samples and sample duplicate (B1JKT1) results are within contractual requirements.

Gamma Spectroscopy

Gamma Spec by method RICH-RC-5017:
The LCS, batch blank, samples and sample duplicate (B1JK62) results are within contractual requirements.

Iodine-129 (LL) by method RICH-RC-5025:
The LCS, batch blank, samples and sample duplicate (B1JK27) results are within contractual requirements.

Liquid Scintillation Counting

Technetium-99 by TEVA method RICH-RC-5065:
The LCS, batch blank, samples, sample duplicate (B1JLV3), and sample matrix spike (B1JH77) results are within contractual requirements.

Tritium by method RICH-RC-5007:
The LCS, batch blank, samples and sample duplicate (B1JK84) results are within contractual requirements.

Total Uranium

Total Uranium by method RICH-RC-5058:
The LCS, batch blank, samples, sample duplicate (B1JKV0), and sample matrix spike (B1JKT9) results are within contractual requirements.

Pacific Northwest National Laboratories
August 31, 2006

I certify that this Certificate of Analysis is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager, or a designee as verified by the following signature.

Reviewed and approved:

Sandra Sager

for Sherryl A. Adam
Project Manager

Drinking Water Method Cross References

	DRINKING WATER ASTM METHOD CROSS REFERENCES	
Referenced Method	**Isotope(s)**	**STL Richland's SOP number**
EPA 901.1	Cs-134, I-131	RICH-RC-5017
EPA 900.0	Alpha & Beta	RICH-RC-5014
EPA 903.1	Ra-226	RICH-RC-5005
EPA 904.0	Ra-228	RICH-RC-5005
EPA 905.0	Sr89/90	RICH-RC-5006
ASTM D2460	Total Radium	RICH-RC-5027
Standard Method 7500-U-C & ASTM D5174	Uranium	RICH-RC-5058
EPA 906.0	Tritium	RICH-RC-5007
NOTE:		
The Gross Alpha LCS is prepared with Am-241 (unless otherwise specified in the case narrative)		
The Gross Beta LCS is prepared with Sr/Y-90 (unless otherwise specified in the case narrative)		

Uncertainty Estimation

STL Richland has adopted the internationally accepted approach to estimating uncertainties described in "NIST Technical Note 1297, 1994 Edition". The approach, "Law of Propagation of Errors", involves the identification of all variables in an analytical method which are used to derive a result. These variables are related to the analytical result (R) by some functional relationship, R = constants * f(x,y,z,...). The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties (u_i) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty (u_c) multiplied by the coverage factor (1,2, or 3).

When three or more sample replicates are used to derive the analytical result, the type A uncertainty is the standard deviation of the mean value (S/vn), where S is the standard deviation of the derived results. The type B uncertainties are all other random or non-random components that are not included in the standard deviation.

The derivation of the general "Law of Propagation of Errors" equations and specific example are available on request.

Report Definitions

Action Lev	An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Level. Often the Action Level is related to the Decision Limit.
Batch	The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.
Bias	Defined by the equation (Result/Expected)-1 as defined by ANSI N13.30.
COC No	Chain of Custody Number assigned by the Client or STL Richland.
Count Error (#s)	Poisson counting statistics of the gross sample count and background. The uncertainty is absolute and in the same units as the result. For Liquid Scintillation Counting (LSC) the batch blank count is the background.
Total Uncert (#s) ***u_c - Combined Uncertainty.***	All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, *u_c the combined uncertainty.* The uncertainty is absolute and in the same units as the result.
(#s), Coverage Factor	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
CRDL (RL)	Contractual Required Detection Limit as defined in the Client's Statement Of Work or STL Richland "default" nominal detection limit. Often referred to the reporting level (RL)
Lc	Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. Lc=(1.645 * Sqrt(2*(BkgrndCnt/BkgrndCntMin)/SCntMin)) * (ConvFct/(Eff*Yld*Abn*Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero.
Lot-Sample No	The number assigned by the LIMS software to track samples received on the same day for a given client. The sample number is a sequential number assigned to each sample in the Lot.
MDC|MDA	Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. MDC = (4.65 * Sqrt((BkgrndCnt/BkgrndCntMin)/SCntMin) + 2.71/SCntMin) * (ConvFct/(Eff * Yld * Abn * Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability.
Primary Detector	The instrument identifier associated with the analysis of the sample aliquot.
Ratio U-234/U-238	The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is 1.038.
Rst/MDC	Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Rst/TotUcert	Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Report DB No	Sample Identifier used by the report system. The number is based upon the first five digits of the **Work Order** Number.
RER	The equation Replicate Error Ratio = (S-D)/[sqrt($TPUs^2$ + $TPUd^2$)] as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUd is the total uncertainty of the duplicate sample.
SDG	Sample Delivery Group Number assigned by the Client or assigned by STL Richland upon sample receipt.
Sum Rpt Alpha Spec Rst(s)	The sum of the reported alpha spec results for tests derived from the same sample excluding duplicate result where the results are in the same units.
Work Order	The LIMS software assign test specific identifier.
Yield	The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method.

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 33172 File Name: h:\Reportdb\edd\FeadIV\Rad\W04969.Edd, h:\Reportdb\edd\FeadIV\Rad\33172.Edd

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9H9RQ010	B1JLV3		MW6-SBB-A1	W06-007	W04969					07/20/2006 11:22

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6207534	ALPHA	12587-46-1	1.33E+00	pCi/L	9.8E-01	1.0E+00	U	1.37E+00	100.0	9310_ALPHABETA	1.116E-01	L	08/16/2006 09:00	I
6207536	BETA	12587-47-2	1.22E+01	pCi/L	2.2E+00	2.7E+00		3.16E+00	100.0	9310_ALPHABETA	1.853E-01	L	08/15/2006 12:55	I
6207537	I-129L	15046-84-1	3.80E-01	pCi/L	1.8E-01	1.8E-01	U	3.73E-01	95.1	I129LL_SEP_LEPS	3.9327E+00	L	08/14/2006 14:52	I
6207529	TC-99	14133-76-7	1.03E+01	pCi/L	4.5E+00	7.0E+00		1.01E+01	100.0	TC99_ETVDSK_LS	1.25E-01	L	08/05/2006 05:55	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9H9RQC10	B1JLV8		MW6-SBB-A1	W06-007	W04969					07/20/2006 09:33

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6207534	ALPHA	12587-46-1	8.80E-01	pCi/L	9.1E-01	9.2E-01	U	1.65E+00	100.0	9310_ALPHABETA	1.28E-01	L	08/16/2006 09:00	I
6207536	BETA	12587-47-2	6.46E+00	pCi/L	1.6E+00	2.0E+00		2.61E+00	100.0	9310_ALPHABETA	2.005E-01	L	08/15/2006 11:07	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9H9RQJ10	B1JM76		MW6-SBB-A1	W06-007	W04969					07/20/2006 10:27

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6207533	H-3	10028-17-8	1.32E+05	pCi/L	1.2E+03	5.5E+03		2.87E+02	100.0	906.0_H3_LSC	5.00E-03	L	08/01/2006 01:43	I
6207534	ALPHA	12587-46-1	7.93E-01	pCi/L	6.4E-01	6.6E-01	U	9.63E-01	100.0	9310_ALPHABETA	1.468E-01	L	08/16/2006 09:00	I
6207536	BETA	12587-47-2	1.09E+01	pCi/L	2.1E+00	2.5E+00		3.15E+00	100.0	9310_ALPHABETA	2.009E-01	L	08/15/2006 11:07	I
6207537	I-129L	15046-84-1	1.56E+00	pCi/L	3.6E-01	3.6E-01		2.34E-01	96.2	I129LL_SEP_LEPS	3.917E+00	L	08/14/2006 14:06	I
6207538	SR-90	10098-97-2	4.56E-02	pCi/L	1.7E-01	1.7E-01	U	3.67E-01	92.5	SRISO_SEP_PRE	1.0002E+00	L	08/31/2006 04:04	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9H9RQT10	B1JLV5		MW6-SBB-A1	W06-007	W04969					07/20/2006 08:50

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6207534	ALPHA	12587-46-1	1.08E+00	pCi/L	1.2E+00	1.3E+00	U	2.31E+00	100.0	9310_ALPHABETA	7.40E-02	L	08/16/2006 09:00	I
6207536	BETA	12587-47-2	6.98E+00	pCi/L	2.8E+00	3.0E+00		5.17E+00	100.0	9310_ALPHABETA	1.079E-01	L	08/15/2006 12:55	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9H9RR010	B1JK92		MW6-SBB-A1	G06-007	W04969					07/20/2006 10:30

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6207536	BETA	12587-47-2	7.45E+02	pCi/L	1.2E+01	1.3E+02		2.51E+00	100.0	9310_ALPHABETA	2.02E-01	L	08/15/2006 12:55	I

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 33172 File Name: h:\Reportdb\edd\FeadIV\Rad\W04969.Edd, h:\Reportdb\edd\FeadIV\Rad\33172.Edd

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9H9RR210	B1JK84		MW6-SBB-A1	G06-007	W04969					07/20/2006 10:45

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6207533	H-3	10028-17-8	6.99E+01	pCi/L	1.2E+02	1.3E+02	U	2.86E+02	100.0	906.0_H3_LSC	5.00E-03	L	08/01/2006 03:05	I
6207534	ALPHA	12587-46-1	1.11E+00	pCi/L	6.3E-01	6.6E-01		9.20E-01	100.0	9310_ALPHABETA	1.277E-01	L	08/16/2006 11:46	I
6207536	BETA	12587-47-2	3.11E+03	pCi/L	3.3E+01	4.1E+02		5.17E+00	100.0	9310_ALPHABETA	1.223E-01	L	08/15/2006 12:55	I
6207539	BE-7	13966-02-4	1.00E+01	pCi/L	1.3E+01	1.3E+01	U	2.53E+01		GAMMA_GS	2.4985E+00	L	08/09/2006 14:24	I
6207539	CO-60	10198-40-0	-7.14E-01	pCi/L	1.6E+00	1.6E+00	U	2.78E+00		GAMMA_GS	2.4985E+00	L	08/09/2006 14:24	I
6207539	CS-134	13967-70-9	3.18E-01	pCi/L	1.4E+00	1.4E+00	U	2.63E+00		GAMMA_GS	2.4985E+00	L	08/09/2006 14:24	I
6207539	CS-137	10045-97-3	5.36E-01	pCi/L	1.5E+00	1.5E+00	U	2.92E+00		GAMMA_GS	2.4985E+00	L	08/09/2006 14:24	I
6207539	EU-152	14683-23-9	3.27E+00	pCi/L	3.9E+00	3.9E+00	U	7.51E+00		GAMMA_GS	2.4985E+00	L	08/09/2006 14:24	I
6207539	EU-154	15585-10-1	3.29E+00	pCi/L	3.8E+00	3.8E+00	U	8.51E+00		GAMMA_GS	2.4985E+00	L	08/09/2006 14:24	I
6207539	EU-155	14391-16-3	-7.68E-01	pCi/L	4.5E+00	4.5E+00	U	7.57E+00		GAMMA_GS	2.4985E+00	L	08/09/2006 14:24	I
6207539	K-40	13966-00-2	1.18E+00	pCi/L	2.1E+01	2.1E+01	U	4.64E+01		GAMMA_GS	2.4985E+00	L	08/09/2006 14:24	I
6207539	RU-106	13967-48-1	1.01E+00	pCi/L	1.3E+01	1.3E+01	U	2.38E+01		GAMMA_GS	2.4985E+00	L	08/09/2006 14:24	I
6207539	SB-125	14234-35-6	-2.52E-01	pCi/L	3.1E+00	3.1E+00	U	5.62E+00		GAMMA_GS	2.4985E+00	L	08/09/2006 14:24	I
6207540	SR-90	10098-97-2	1.33E+03	pCi/L	8.7E+00	1.9E+02		6.76E-01	84.2	SRISO_SEP_PRE	1.0002E+00	L	08/31/2006 03:41	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9H9RR910	B1JK88		MW6-SBB-A1	G06-007	W04969					07/20/2006 09:55

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6207536	BETA	12587-47-2	4.21E+02	pCi/L	9.5E+00	5.6E+01		2.77E+00	100.0	9310_ALPHABETA	2.004E-01	L	08/15/2006 14:55	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9H9RRF10	B1JK94		MW6-SBB-A1	G06-007	W04969					07/20/2006 09:40

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6207536	BETA	12587-47-2	5.91E+03	pCi/L	4.4E+01	7.5E+02		5.94E+00	100.0	9310_ALPHABETA	6.59E-02	L	08/15/2006 13:45	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9H9RRN10	B1JK82		MW6-SBB-A1	G06-007	W04969					07/20/2006 10:15

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6207536	BETA	12587-47-2	7.73E+02	pCi/L	1.3E+01	1.0E+02		2.88E+00	100.0	9310_ALPHABETA	2.001E-01	L	08/15/2006 12:55	I

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 33172 File Name: h:\Reportdb\edd\FeadIV\Rad\W04969.Edd, h:\Reportdb\edd\FeadIV\Rad\33172.Edd

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9H9RRR10	B1JK80		MW6-SBB-A1	G06-007	W04969					07/20/2006 10:30

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6207536	BETA	12587-47-2	2.21E+03	pCi/L	2.2E+01	2.8E+02		2.80E+00	100.0	9310_ALPHABETA	2.013E-01	L	08/15/2006 12:55	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9H9RRV10	B1JK90		MW6-SBB-A1	G06-007	W04969					07/20/2006 09:40

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6207536	BETA	12587-47-2	2.11E+03	pCi/L	2.2E+01	2.7E+02		2.76E+00	100.0	9310_ALPHABETA	1.987E-01	L	08/15/2006 12:55	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9H9RV010	B1JK27		MW6-SBB-A1	A06-007	W04969					07/20/2006 11:30

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6207533	H-3	10028-17-8	1.43E+03	pCi/L	1.7E+02	1.9E+02		2.86E+02	100.0	906.0_H3_LSC	5.00E-03	L	08/01/2006 08:32	I
6207537	I-129L	15046-84-1	3.28E-01	pCi/L	2.0E-01	2.0E-01	U	3.12E-01	94.9	I129LL_SEP_LEPS	3.9042E+00	L	08/14/2006 16:45	I
6207529	TC-99	14133-76-7	1.34E+02	pCi/L	7.6E+00	1.5E+01		1.02E+01	100.0	TC99_ETVDSK_LS	1.25E-01	L	08/05/2006 05:55	I
6207532	Uranium	7440-61-1	1.01E+01	ug/L	1.0E+00	1.0E+00		8.22E-02		UTOT_KPA	2.55E-02	ML	08/18/2006 10:41	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9H9RVF10	B1JH77		MW6-SBB-A1	I06-044	W04969					07/20/2006 09:59

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6207533	H-3	10028-17-8	2.26E+04	pCi/L	4.9E+02	1.1E+03		2.85E+02	100.0	906.0_H3_LSC	5.00E-03	L	08/01/2006 05:48	I
6207537	I-129L	15046-84-1	2.71E-01	pCi/L	1.9E-01	1.9E-01	U	3.96E-01	83.5	I129LL_SEP_LEPS	3.901E+00	L	08/14/2006 14:53	I
6207529	TC-99	14133-76-7	1.13E+02	pCi/L	7.1E+00	1.4E+01		1.01E+01	100.0	TC99_ETVDSK_LS	1.25E-01	L	08/05/2006 05:55	I
6207532	Uranium	7440-61-1	2.58E+00	ug/L	2.7E-01	2.7E-01		8.09E-02		UTOT_KPA	2.59E-02	ML	08/18/2006 10:32	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9H9RVV10	B1JK31		MW6-SBB-A1	A06-007	W04969					07/20/2006 08:50

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6207533	H-3	10028-17-8	1.52E+03	pCi/L	1.7E+02	2.0E+02		2.86E+02	100.0	906.0_H3_LSC	5.00E-03	L	08/01/2006 07:10	I
6207537	I-129L	15046-84-1	-5.42E-02	pCi/L	1.2E-01	1.2E-01	U	2.17E-01	92.7	I129LL_SEP_LEPS	3.888E+00	L	08/14/2006 16:14	I
6207529	TC-99	14133-76-7	1.17E+02	pCi/L	7.2E+00	1.4E+01		1.01E+01	100.0	TC99_ETVDSK_LS	1.25E-01	L	08/05/2006 05:55	I
6207532	Uranium	7440-61-1	9.11E-01	ug/L	9.3E-02	9.3E-02		8.22E-02		UTOT_KPA	2.55E-02	ML	08/18/2006 10:34	I

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 33172 File Name: h:\Reportdb\edd\FeadIV\Rad\W04969.Edd, h:\Reportdb\edd\FeadIV\Rad\33172.Edd

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9H9TM110	B1JK66		MW6-SBB-A1	G06-007	W04969					07/21/2006 11:13

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6207533	H-3	10028-17-8	2.63E+02	pCi/L	1.3E+02	1.4E+02	U	2.88E+02	100.0	906.0_H3_LSC	5.00E-03	L	08/01/2006 11:15	I
6207534	ALPHA	12587-46-1	6.93E+00	pCi/L	2.1E+00	2.5E+00		2.17E+00	100.0	9310_ALPHABETA	6.11E-02	L	08/15/2006 16:54	I
6207536	BETA	12587-47-2	1.36E+03	pCi/L	2.1E+01	1.7E+02		4.21E+00	100.0	9310_ALPHABETA	1.403E-01	L	08/15/2006 14:55	I
6207539	BE-7	13966-02-4	-1.95E+00	pCi/L	1.1E+01	1.1E+01	U	1.95E+01		GAMMA_GS	2.5008E+00	L	08/09/2006 14:24	I
6207539	CO-60	10198-40-0	1.25E+00	pCi/L	1.4E+00	1.4E+00	U	3.05E+00		GAMMA_GS	2.5008E+00	L	08/09/2006 14:24	I
6207539	CS-134	13967-70-9	-5.65E-01	pCi/L	1.5E+00	1.5E+00	U	2.59E+00		GAMMA_GS	2.5008E+00	L	08/09/2006 14:24	I
6207539	CS-137	10045-97-3	1.32E-01	pCi/L	2.5E+00	2.5E+00	U	1.75E+00		GAMMA_GS	2.5008E+00	L	08/09/2006 14:24	I
6207539	EU-152	14683-23-9	1.27E+00	pCi/L	3.3E+00	3.3E+00	U	6.05E+00		GAMMA_GS	2.5008E+00	L	08/09/2006 14:24	I
6207539	EU-154	15585-10-1	5.31E-01	pCi/L	3.3E+00	3.3E+00	U	6.78E+00		GAMMA_GS	2.5008E+00	L	08/09/2006 14:24	I
6207539	EU-155	14391-16-3	8.39E-02	pCi/L	3.0E+00	3.0E+00	U	5.43E+00		GAMMA_GS	2.5008E+00	L	08/09/2006 14:24	I
6207539	K-40	13966-00-2	-1.72E+01	pCi/L	2.5E+01	2.5E+01	U	5.40E+01		GAMMA_GS	2.5008E+00	L	08/09/2006 14:24	I
6207539	RU-106	13967-48-1	-7.07E-01	pCi/L	1.2E+01	1.2E+01	U	2.14E+01		GAMMA_GS	2.5008E+00	L	08/09/2006 14:24	I
6207539	SB-125	14234-35-6	4.89E-02	pCi/L	2.8E+00	2.8E+00	U	5.19E+00		GAMMA_GS	2.5008E+00	L	08/09/2006 14:24	I
6207540	SR-90	10098-97-2	6.11E+02	pCi/L	4.5E+00	8.9E+01		3.74E-01	93.6	SRISO_SEP_PRE	9.999E-01	L	08/31/2006 04:57	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9H9TM210	B1JK62		MW6-SBB-A1	G06-007	W04969					07/21/2006 09:54

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6207533	H-3	10028-17-8	2.35E+02	pCi/L	1.3E+02	1.4E+02	U	2.85E+02	100.0	906.0_H3_LSC	5.00E-03	L	08/01/2006 16:43	I
6207534	ALPHA	12587-46-1	1.67E+00	pCi/L	2.3E+00	2.3E+00	U	4.31E+00	100.0	9310_ALPHABETA	3.77E-02	L	08/15/2006 16:54	I
6207536	BETA	12587-47-2	9.42E+03	pCi/L	9.0E+01	1.2E+03		1.15E+01	100.0	9310_ALPHABETA	5.21E-02	L	08/15/2006 14:55	I
6207539	BE-7	13966-02-4	7.77E+00	pCi/L	3.9E+01	3.9E+01	U	7.35E+01		GAMMA_GS	1.0081E+00	L	08/09/2006 14:25	I
6207539	CO-60	10198-40-0	-1.65E+00	pCi/L	4.8E+00	4.8E+00	U	8.69E+00		GAMMA_GS	1.0081E+00	L	08/09/2006 14:25	I
6207539	CS-134	13967-70-9	-1.65E+00	pCi/L	5.5E+00	5.5E+00	U	9.68E+00		GAMMA_GS	1.0081E+00	L	08/09/2006 14:25	I
6207539	CS-137	10045-97-3	-6.93E-01	pCi/L	4.3E+00	4.3E+00	U	7.81E+00		GAMMA_GS	1.0081E+00	L	08/09/2006 14:25	I
6207539	EU-152	14683-23-9	3.38E+00	pCi/L	1.2E+01	1.2E+01	U	2.12E+01		GAMMA_GS	1.0081E+00	L	08/09/2006 14:25	I
6207539	EU-154	15585-10-1	-1.53E+00	pCi/L	1.4E+01	1.4E+01	U	2.65E+01		GAMMA_GS	1.0081E+00	L	08/09/2006 14:25	I
6207539	EU-155	14391-16-3	-1.25E+01	pCi/L	1.1E+01	1.1E+01	U	1.62E+01		GAMMA_GS	1.0081E+00	L	08/09/2006 14:25	I
6207539	K-40	13966-00-2	-9.88E+01	pCi/L	1.1E+02	1.1E+02	U	2.23E+02		GAMMA_GS	1.0081E+00	L	08/09/2006 14:25	I
6207539	RU-106	13967-48-1	-3.15E+00	pCi/L	4.1E+01	4.1E+01	U	7.46E+01		GAMMA_GS	1.0081E+00	L	08/09/2006 14:25	I

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

6207539	SB-125	14234-35-6	-6.22E+00	pCi/L	1.2E+01	1.2E+01	U	1.96E+01		GAMMA_GS	1.0081E+00	L	08/09/2006	14:25	I
6207540	SR-90	10098-97-2	5.28E+03	pCi/L	3.5E+01	7.7E+02		1.90E+00	84.6	SRISO_SEP_PRE	4.61E-01	L	08/31/2006	04:27	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9H9TM710	B1JKV0		MW6-SBB-A1	I06-048	W04969					07/21/2006 10:29

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6207529	TC-99	14133-76-7	3.61E-01	pCi/L	4.2E+00	6.4E+00	U	1.02E+01	100.0	TC99_ETVDSK_LS	1.25E-01	L	08/05/2006 05:55	I
6207532	Uranium	7440-61-1	1.09E+00	ug/L	1.1E-01	1.1E-01		8.28E-02		UTOT_KPA	2.53E-02	ML	08/18/2006 10:44	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9H9TM810	B1JKT9		MW6-SBB-A1	I06-048	W04969					07/21/2006 10:29

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6207529	TC-99	14133-76-7	-2.55E+00	pCi/L	4.1E+00	6.2E+00	U	1.01E+01	100.0	TC99_ETVDSK_LS	1.251E-01	L	08/05/2006 05:55	I
6207532	Uranium	7440-61-1	1.08E+00	ug/L	1.1E-01	1.1E-01		8.28E-02		UTOT_KPA	2.53E-02	ML	08/18/2006 10:54	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9H9TM910	B1JKT6		MW6-SBB-A1	I06-048	W04969					07/21/2006 12:11

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6207529	TC-99	14133-76-7	1.49E+02	pCi/L	7.9E+00	1.6E+01		1.02E+01	100.0	TC99_ETVDSK_LS	1.25E-01	L	08/05/2006 05:55	I
6207532	Uranium	7440-61-1	2.25E+01	ug/L	2.7E+00	2.7E+00		8.22E-02		UTOT_KPA	2.55E-02	ML	08/18/2006 10:58	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9H9TMV10	B1JKT1		MW6-SBB-A1	I06-047	W04969					07/21/2006 08:57

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6207533	H-3	10028-17-8	8.64E+02	pCi/L	1.5E+02	1.7E+02		2.85E+02	100.0	906.0_H3_LSC	5.00E-03	L	08/01/2006 09:54	I
6207536	BETA	12587-47-2	4.24E+03	pCi/L	2.9E+01	6.8E+02		2.59E+00	100.0	9310_ALPHABETA	2.012E-01	L	08/15/2006 14:55	I
6207540	SR-90	10098-97-2	2.43E+03	pCi/L	1.6E+01	3.5E+02		8.89E-01	89.2	SRISO_SEP_PRE	1.0006E+00	L	08/31/2006 04:27	I

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

Thursday, August 31, 2006

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04969.Edd, h:\Reportdb\edd\FeadIV\Rad\33172.Edd

Lab Sample Id:	H93G21AB	**Sdg/Rept Nbr:**	W04969 33172	**Collection Date:**	07/20/2006 11:30
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	07/20/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								AU	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6207537	I-129L	3.87E-02	pCi/L	1.2E-01	U	2.28E-01	95.9		I129LL_SEP_L	4.0007E+00	08/14/2006				D
BLK	15046-84-1			1.2E-01						L	17:58				

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04969.Edd, h:\Reportdb\edd\FeadIV\Rad\33172.Edd

Lab Sample Id: H93G51AB **Sdg/Rept Nbr:** W04969 33172 **Collection Date:** 07/20/2006 10:27

Client Id: NA **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 07/20/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								AW	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6207538	SR-90	1.94E-01	pCi/L	1.9E-01	U	3.73E-01	94.4		SRISO_SEP_P	1.0009E+00	08/31/2006				D
BLK	10098-97-2			1.9E-01						L	04:04				

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04969.Edd, h:\Reportdb\edd\FeadIV\Rad\33172.Edd

Lab Sample Id: H93G71AB **Sdg/Rept Nbr:** W04969 33172 **Collection Date:** 07/21/2006 11:13
Client Id: NA **Matrix:** WATER WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** BLK **Received Date:** 07/21/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								AY	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6207539	BE-7	7.83E-01	pCi/L	9.8E+00	U	1.82E+01			GAMMA_GS	2.5037E+00	08/09/2006				D
BLK	13966-02-4			9.8E+00						L	14:26				
6207539	CO-60	-6.34E-01	pCi/L	1.2E+00	U	1.97E+00			GAMMA_GS	2.5037E+00	08/09/2006				D
BLK	10198-40-0			1.2E+00						L	14:26				
6207539	CS-134	9.21E-02	pCi/L	1.2E+00	U	2.26E+00			GAMMA_GS	2.5037E+00	08/09/2006				D
BLK	13967-70-9			1.2E+00						L	14:26				
6207539	CS-137	-9.32E-02	pCi/L	1.2E+00	U	2.20E+00			GAMMA_GS	2.5037E+00	08/09/2006				D
BLK	10045-97-3			1.2E+00						L	14:26				
6207539	EU-152	-7.66E-01	pCi/L	3.0E+00	U	5.23E+00			GAMMA_GS	2.5037E+00	08/09/2006				D
BLK	14683-23-9			3.0E+00						L	14:26				
6207539	EU-154	-1.29E+00	pCi/L	3.6E+00	U	6.39E+00			GAMMA_GS	2.5037E+00	08/09/2006				D
BLK	15585-10-1			3.6E+00						L	14:26				
6207539	EU-155	-2.27E-01	pCi/L	2.4E+00	U	4.44E+00			GAMMA_GS	2.5037E+00	08/09/2006				D
BLK	14391-16-3			2.4E+00						L	14:26				
6207539	K-40	1.88E+01	pCi/L	2.8E+01	U	6.04E+01			GAMMA_GS	2.5037E+00	08/09/2006				D
BLK	13966-00-2			2.8E+01						L	14:26				
6207539	RU-106	4.02E+00	pCi/L	1.0E+01	U	1.98E+01			GAMMA_GS	2.5037E+00	08/09/2006				D
BLK	13967-48-1			1.0E+01						L	14:26				
6207539	SB-125	4.23E-01	pCi/L	2.8E+00	U	5.25E+00			GAMMA_GS	2.5037E+00	08/09/2006				D
BLK	14234-35-6			2.8E+00						L	14:26				

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04969.Edd, h:\Reportdb\edd\FeadIV\Rad\33172.Edd

Lab Sample Id: H93G81AB **Sdg/Rept Nbr:** W04969 33172 **Collection Date:** 07/21/2006 08:57
Client Id: NA **Matrix:** WATER WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** BLK **Received Date:** 07/21/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BA	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6207540	SR-90	8.87E-03	pCi/L	1.8E-01	U	4.10E-01	88.6		SRISO_SEP_P	9.995E-01	08/31/2006				D
BLK	10098-97-2			1.8E-01						L	05:02				

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04969.Edd, h:\Reportdb\edd\FeadIV\Rad\33172.Edd

Lab Sample Id: H93GC1AB **Sdg/Rept Nbr:** W04969 33172 **Collection Date:** 07/20/2006 11:22

Client Id: NA **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 07/20/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BC	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6207529	TC-99	-1.92E+00	pCi/L	6.2E+00	U	1.01E+01	100.0		TC99_ETVDSK	1.251E-01	08/05/2006				D
BLK	14133-76-7			4.1E+00						L	05:55				

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04969.Edd, h:\Reportdb\edd\FeadIV\Rad\33172.Edd

Lab Sample Id: H93GG1AB **Sdg/Rept Nbr:** W04969 33172 **Collection Date:** 07/21/2006 10:29

Client Id: NA **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 07/21/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BE	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6207532	Uranium	2.70E-03	ug/L	4.1E-04	U	8.52E-02			UTOT_KPA	2.46E-02	08/18/2006				D
BLK	7440-61-1			4.1E-04						ML	10:19				

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04969.Edd, h:\Reportdb\edd\FeadIV\Rad\33172.Edd

Lab Sample Id: H93GJ1AB **Sdg/Rept Nbr:** W04969 33172 **Collection Date:** 07/20/2006 10:45

Client Id: NA **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 07/20/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BH	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6207533	H-3	1.26E+02	pCi/L	1.4E+02	U	2.87E+02	100.0		906.0_H3_LSC	5.00E-03	08/01/2006				D
BLK	10028-17-8			1.2E+02						L	13:59				

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04969.Edd, h:\Reportdb\edd\FeadIV\Rad\33172.Edd

Lab Sample Id: H93GJ1DX **Sdg/Rept Nbr:** W04969 33172 **Collection Date:** 07/20/2006 10:45

Client Id: NA **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 07/20/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BJ	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6207533	H-3	5.09E+00	pCi/L	1.3E+02	U	2.85E+02	100.0		906.0_H3_LSC	5.00E-03	07/31/2006				D
BLK	10028-17-8			1.2E+02						L	22:59				

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04969.Edd, h:\Reportdb\edd\FeadIV\Rad\33172.Edd

Lab Sample Id: H93GQ1AB **Sdg/Rept Nbr:** W04969 33172 **Collection Date:** 07/20/2006 09:33

Client Id: NA **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 07/20/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BL	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6207534	ALPHA	-4.48E-02	pCi/L	1.4E-01	U	3.84E-01	100.0		9310_ALPHAB	2.00E-01	08/16/2006				D
BLK	12587-46-1			1.4E-01						L	11:46				

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04969.Edd, h:\Reportdb\edd\FeadIV\Rad\33172.Edd

Lab Sample Id: H93GX1AB **Sdg/Rept Nbr:** W04969 33172 **Collection Date:** 07/20/2006 08:50

Client Id: NA **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 07/20/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BN	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6207536	BETA	2.81E+00	pCi/L	1.1E+00		1.82E+00	100.0		9310_ALPHAB	2.007E-01	08/15/2006				D
BLK	12587-47-2			1.0E+00						L	13:45				

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04969.Edd, h:\Reportdb\edd\FeadIV\Rad\33172.Edd

Lab Sample Id: H93G21CS **Sdg/Rept Nbr:** W04969 33172 **Collection Date:** 07/20/2006 11:30

Client Id: NA **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** BS **Received Date:** 07/20/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								AV	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6207537	I-129L	8.83E+00	pCi/L	1.2E+00		3.62E-01	93.5	9.62E+00	I129LL_SEP_L	4.0004E+00	08/14/2006			70	D
BS	15046-84-1			1.2E+00				91.8		L	19:01			130	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04969.Edd, h:\Reportdb\edd\FeadIV\Rad\33172.Edd

Lab Sample Id: H93G51CS **Sdg/Rept Nbr:** W04969 33172 **Collection Date:** 07/20/2006 10:27

Client Id: NA **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** BS **Received Date:** 07/20/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								AX	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6207538	SR-90	1.23E+01	pCi/L	1.9E+00		4.20E-01	87.9	1.42E+01	SRISO_SEP_P	1.0013E+00	08/31/2006			70	D
BS	10098-97-2			6.3E-01				86.6		L	04:04			130	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04969.Edd, h:\Reportdb\edd\FeadIV\Rad\33172.Edd

Lab Sample Id: H93G71CS **Sdg/Rept Nbr:** W04969 33172 **Collection Date:** 07/21/2006 11:13
Client Id: NA **Matrix:** WATER WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** BS **Received Date:** 07/21/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								AZ	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6207539	CO-60	3.00E+01	pCi/L	6.0E+00		3.74E+00		3.04E+01	GAMMA_GS	2.5029E+00	08/09/2006			75	D
BS	10198-40-0			6.0E+00				98.9		L	14:27			125	
6207539	CS-137	2.11E+01	pCi/L	5.3E+00		3.76E+00		1.99E+01	GAMMA_GS	2.5029E+00	08/09/2006			70	D
BS	10045-97-3			5.3E+00				106.4		L	14:27			130	
6207539	EU-152	5.75E+01	pCi/L	1.2E+01	U	1.77E+01		6.06E+01	GAMMA_GS	2.5029E+00	08/09/2006			70	D
BS	14683-23-9			1.2E+01				94.9		L	14:27			130	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04969.Edd, h:\Reportdb\edd\FeadIV\Rad\33172.Edd

Lab Sample Id: H93G81CS **Sdg/Rept Nbr:** W04969 33172 **Collection Date:** 07/21/2006 08:57

Client Id: NA **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** BS **Received Date:** 07/21/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BB	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6207540	SR-90	1.53E+01	pCi/L	2.4E+00		4.55E-01	77.8	1.39E+01	SRISO_SEP_P	1.0001E+00	08/31/2006			70	D
BS	10098-97-2			8.1E-01				110.4		L	05:02			130	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04969.Edd, h:\Reportdb\edd\FeadIV\Rad\33172.Edd

Lab Sample Id: H93GC1CS **Sdg/Rept Nbr:** W04969 33172 **Collection Date:** 07/20/2006 11:22

Client Id: NA **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** BS **Received Date:** 07/20/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BD	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6207529	TC-99	5.06E+02	pCi/L	4.0E+01		1.01E+01	100.0	5.40E+02	TC99_ETVDSK	1.25E-01	08/05/2006			75	D
BS	14133-76-7			1.3E+01				93.6		L	05:55			125	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04969.Edd, h:\Reportdb\edd\FeadIV\Rad\33172.Edd

Lab Sample Id: H93GG1CS **Sdg/Rept Nbr:** W04969 33172 **Collection Date:** 07/21/2006 10:29

Client Id: NA **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** BS **Received Date:** 07/21/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BF	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6207532	Uranium	3.49E+01	ug/L	4.1E+00		7.97E-02		3.42E+01	UTOT_KPA	2.63E-02	08/18/2006			75	D
BS	7440-61-1			4.1E+00				101.9		ML	10:27			125	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04969.Edd, h:\Reportdb\edd\FeadIV\Rad\33172.Edd

Lab Sample Id: H93GG1DS **Sdg/Rept Nbr:** W04969 33172 **Collection Date:** 07/21/2006 10:29

Client Id: NA **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** BS **Received Date:** 07/21/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BG	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6207532	Uranium	3.53E+00	ug/L	3.6E-01		8.38E-02		3.62E+00	UTOT_KPA	2.50E-02	08/18/2006			75	D
BS	7440-61-1			3.6E-01				97.5		ML	10:30			125	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04969.Edd, h:\Reportdb\edd\FeadIV\Rad\33172.Edd

Lab Sample Id: H93GJ1CS **Sdg/Rept Nbr:** W04969 33172 **Collection Date:** 07/20/2006 10:45

Client Id: NA **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** BS **Received Date:** 07/20/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BI	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6207533	H-3	2.59E+03	pCi/L	2.4E+02		2.87E+02	100.0	2.72E+03	906.0_H3_LSC	5.00E-03	08/01/2006			75	D
BS	10028-17-8			2.0E+02				95.4		L	15:21			125	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04969.Edd, h:\Reportdb\edd\FeadIV\Rad\33172.Edd

Lab Sample Id: H93GJ1EM **Sdg/Rept Nbr:** W04969 33172 **Collection Date:** 07/20/2006 10:45

Client Id: NA **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** BS **Received Date:** 07/20/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BK	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6207533	H-3	2.45E+03	pCi/L	2.4E+02		2.86E+02	100.0	2.72E+03	906.0_H3_LSC	5.00E-03	08/01/2006			75	D
BS	10028-17-8			1.9E+02				90.3		L	00:21			125	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04969.Edd, h:\Reportdb\edd\FeadIV\Rad\33172.Edd

Lab Sample Id: H93GQ1CS **Sdg/Rept Nbr:** W04969 33172 **Collection Date:** 07/20/2006 09:33

Client Id: NA **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** BS **Received Date:** 07/20/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BM	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6207534	ALPHA	1.89E+01	pCi/L	4.1E+00		3.87E-01	100.0	2.30E+01	9310_ALPHAB	1.994E-01	08/16/2006			70	D
BS	12587-46-1			1.5E+00				82.1		L	11:46			130	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04969.Edd, h:\Reportdb\edd\FeadIV\Rad\33172.Edd

Lab Sample Id: H93GX1CS **Sdg/Rept Nbr:** W04969 33172 **Collection Date:** 07/20/2006 08:50

Client Id: NA **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** BS **Received Date:** 07/20/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BO	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6207536	BETA	2.70E+01	pCi/L	3.9E+00		1.85E+00	100.0	2.28E+01	9310_ALPHAB	2.001E-01	08/15/2006			70	D
BS	12587-47-2			1.9E+00				118.4		L	13:45			130	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04969.Edd, h:\Reportdb\edd\FeadIV\Rad\33172.Edd

Lab Sample Id:	H9RQ01FR	**Sdg/Rept Nbr:**	W04969 33172	**Collection Date:**	07/20/2006 11:22
Client Id:	B1JLV3	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	DUP	**Received Date:**	07/20/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W06-007	MW6-SBB-A19981								BP	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6207529	TC-99	1.06E+01	pCi/L	7.0E+00		1.01E+01	100.0		TC99_ETVDSK	1.25E-01	08/05/2006	3.5	0.1		D
DUP	14133-76-7	1.03E+01		4.5E+00						L	05:55	20.0	3		

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04969.Edd, h:\Reportdb\edd\FeadIV\Rad\33172.Edd

Lab Sample Id: H9RQC1DR
Client Id: B1JLV8
Moisture/Solids%*:

Sdg/Rept Nbr: W04969 33172
Matrix: WATER WATER
QC Type: DUP

Collection Date: 07/20/2006 09:33
Sample On Date:
Received Date: 07/20/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W06-007	MW6-SBB-A19981								BQ	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6207534	ALPHA	1.63E+00	pCi/L	1.1E+00		1.29E+00	100.0		9310_ALPHAB	1.282E-01	08/16/2006	59.5	1.		D
DUP	12587-46-1	8.80E-01		1.0E+00						L	09:00	20.0	3		

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04969.Edd, h:\Reportdb\edd\FeadIV\Rad\33172.Edd

Lab Sample Id:	H9RQJ1GR	**Sdg/Rept Nbr:**	W04969 33172	**Collection Date:**	07/20/2006 10:27
Client Id:	B1JM76	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	DUP	**Received Date:**	07/20/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W06-007	MW6-SBB-A19981								BR	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6207538	SR-90	-1.24E-01	pCi/L	1.5E-01	U	3.61E-01	99.2		SRISO_SEP_P	1.00E+00	08/31/2006	0.0	1.6		D
DUP	10098-97-2	4.56E-02		1.5E-01						L	04:04	20.0	3		

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04969.Edd, h:\Reportdb\edd\FeadIV\Rad\33172.Edd

Lab Sample Id: H9RQT1DR **Sdg/Rept Nbr:** W04969 33172 **Collection Date:** 07/20/2006 08:50
Client Id: B1JLV5 **Matrix:** WATER WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** DUP **Received Date:** 07/20/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W06-007	MW6-SBB-A19981								BS	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6207536	BETA	7.48E+00	pCi/L	3.0E+00		4.81E+00	100.0		9310_ALPHAB	1.071E-01	08/15/2006	6.9	0.2		D
DUP	12587-47-2	6.98E+00		2.7E+00						L	12:55	20.0	3		

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04969.Edd, h:\Reportdb\edd\FeadIV\Rad\33172.Edd

Lab Sample Id: H9RR21GR **Sdg/Rept Nbr:** W04969 33172 **Collection Date:** 07/20/2006 10:45

Client Id: B1JK84 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 07/20/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
G06-007	MW6-SBB-A19981								BT	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6207533	H-3	-2.12E+00	pCi/L	1.3E+02	U	2.86E+02	100.0		906.0_H3_LSC	5.00E-03	08/01/2006	212.5	0.8		D
DUP	10028-17-8	6.99E+01		1.2E+02						L	04:27	20.0	3		

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04969.Edd, h:\Reportdb\edd\FeadIV\Rad\33172.Edd

Lab Sample Id: H9RV01FR **Sdg/Rept Nbr:** W04969 33172 **Collection Date:** 07/20/2006 11:30

Client Id: B1JK27 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 07/20/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
A06-007	MW6-SBB-A19981								BU	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6207537	I-129L	3.38E-02	pCi/L	1.4E-01	U	2.59E-01	96.5		I129LL_SEP_L	3.9348E+00	08/14/2006	162.7	3.1		D
DUP	15046-84-1	3.28E-01		1.4E-01						L	16:46	20.0	3		

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04969.Edd, h:\Reportdb\edd\FeadIV\Rad\33172.Edd

Lab Sample Id: H9TM21GR **Sdg/Rept Nbr:** W04969 33172 **Collection Date:** 07/21/2006 09:54
Client Id: B1JK62 **Matrix:** WATER WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** DUP **Received Date:** 07/21/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
G06-007	MW6-SBB-A19981								BW	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6207539	BE-7	-5.28E+00	pCi/L	3.9E+01	U	7.05E+01			GAMMA_GS	9.985E-01	08/09/2006	1049.2	0.5		D
DUP	13966-02-4	7.77E+00		3.9E+01						L	14:26	20.0	3		
6207539	CO-60	1.02E+00	pCi/L	3.8E+00	U	8.20E+00			GAMMA_GS	9.985E-01	08/09/2006	0.0	1.		D
DUP	10198-40-0	-1.65E+00		3.8E+00						L	14:26	20.0	3		
6207539	CS-134	-1.79E-01	pCi/L	4.2E+00	U	7.94E+00			GAMMA_GS	9.985E-01	08/09/2006	0.0	0.5		D
DUP	13967-70-9	-1.65E+00		4.2E+00						L	14:26	20.0	3		
6207539	CS-137	-3.67E-02	pCi/L	3.6E+00	U	6.82E+00			GAMMA_GS	9.985E-01	08/09/2006	0.0	0.3		D
DUP	10045-97-3	-6.93E-01		3.6E+00						L	14:26	20.0	3		
6207539	EU-152	-4.40E+00	pCi/L	1.1E+01	U	1.85E+01			GAMMA_GS	9.985E-01	08/09/2006	0.0	1.		D
DUP	14683-23-9	3.38E+00		1.1E+01						L	14:26	20.0	3		
6207539	EU-154	4.32E+00	pCi/L	9.9E+00	U	2.21E+01			GAMMA_GS	9.985E-01	08/09/2006	420.7	0.8		D
DUP	15585-10-1	-1.53E+00		9.9E+00						L	14:26	20.0	3		
6207539	EU-155	6.61E+00	pCi/L	9.2E+00	U	1.67E+01			GAMMA_GS	9.985E-01	08/09/2006	0.0	3.		D
DUP	14391-16-3	-1.25E+01		9.2E+00						L	14:26	20.0	3		
6207539	K-40	-1.32E+01	pCi/L	5.2E+01	U	1.08E+02			GAMMA_GS	9.985E-01	08/09/2006	0.0	2.3		D
DUP	13966-00-2	-9.88E+01		5.2E+01						L	14:26	20.0	3		
6207539	RU-106	-5.90E+01	pCi/L	3.8E+01	U	5.30E+01			GAMMA_GS	9.985E-01	08/09/2006	0.0	2.1		D
DUP	13967-48-1	-3.15E+00		3.8E+01						L	14:26	20.0	3		
6207539	SB-125	3.31E+00	pCi/L	8.4E+00	U	1.64E+01			GAMMA_GS	9.985E-01	08/09/2006	0.0	1.6		D
DUP	14234-35-6	-6.22E+00		8.4E+00						L	14:26	20.0	3		

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04969.Edd, h:\Reportdb\edd\FeadIV\Rad\33172.Edd

Lab Sample Id:	H9TM71DR	**Sdg/Rept Nbr:**	W04969	33172	**Collection Date:** 07/21/2006 10:29
Client Id:	B1JKV0	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	**DUP**		**Received Date:** 07/21/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
I06-048	MW6-SBB-A19981								BX	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6207532	Uranium	1.01E+00	ug/L	1.0E-01		8.28E-02			UTOT_KPA	2.53E-02	08/18/2006	7.4	1.1		D
DUP	7440-61-1	1.09E+00		1.0E-01						ML	10:47	20.0	3		

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04969.Edd, h:\Reportdb\edd\FeadIV\Rad\33172.Edd

Lab Sample Id:	H9TMV1ER	**Sdg/Rept Nbr:**	W04969 33172	**Collection Date:**	07/21/2006 08:57
Client Id:	B1JKT1	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	DUP	**Received Date:**	07/21/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
I06-047	MW6-SBB-A19981								BZ	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6207540	SR-90	2.30E+03	pCi/L	3.3E+02		8.72E-01	96.9		SRISO_SEP_P	9.999E-01	08/31/2006	5.3	0.5		D
DUP	10098-97-2	2.43E+03		1.5E+01						L	04:27	20.0	3		

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04969.Edd, h:\Reportdb\edd\FeadIV\Rad\33172.Edd

Lab Sample Id: H9RVF1FW **Sdg/Rept Nbr:** W04969 33172 **Collection Date:** 07/20/2006 09:59

Client Id: B1JH77 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** MS **Received Date:** 07/20/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
I06-044	MW6-SBB-A19981								BV	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6207529	TC-99	3.41E+03	pCi/L	2.4E+02		1.01E+01	100.0	3.61E+03	TC99_ETVDSK	1.25E-01	08/05/2006			60	D
MS	14133-76-7			3.2E+01				94.6		L	05:55			140	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04969.Edd, h:\Reportdb\edd\FeadIV\Rad\33172.Edd

Lab Sample Id: H9TM81DW **Sdg/Rept Nbr:** W04969 33172 **Collection Date:** 07/21/2006 10:29

Client Id: B1JKT9 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** MS **Received Date:** 07/21/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
I06-048	MW6-SBB-A19981								BY	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6207532	Uranium	3.57E+01	ug/L	4.3E+00		8.32E-02		3.59E+01	UTOT_KPA	2.52E-02	08/18/2006			60	D
MS	7440-61-1			4.3E+00				99.3		ML	10:56			140	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

8/16/2006 12:51:12 PM

Lot No., Due Date: J6G210334,J6G210350,J6G210343; 09/01/2006

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6207537; RGAMLEPS Gamma by LEPS

SDG, Matrix: W04969; WATER

	Yes	No	N/A
1.0 COC			
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	✓		
2.0 QC Batch			
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	✓		
2.2 Are the QC appropriate for the analysis included in the batch?	✓		
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	✓		
2.4 Does the Worksheets include a Tracer Vial label for each sample?	✓		
3.0 QC & Samples			
3.1 Is the blank results, yield, and MDA within contract limits?	✓		
3.2 Is the LCS result, yield, and MDA within contract limits?	✓		
3.3 Are the MS/MSD results, yields, and MDA within contract limits?			✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?	✓		
3.5 Are the sample yields and MDAs within contract limits?	✓		
4.0 Raw Data			
4.1 Were results calculated in the correct units?	✓		
4.2 Were analysis volumes entered correctly?	✓		
4.3 Were Yields entered correctly?			✓
4.4 Were spectra reviewed/meet contractual requirements?	✓		
4.5 Were raw counts reviewed for anomalies?	✓		
5.0 Other			
5.1 Are all nonconformances included and noted?			✓
5.2 Are all required forms filled out?	✓		
5.3 Was the correct methodology used?	✓		
5.4 Was transcription checked?	✓		
5.5 Were all calculations checked at a minimum frequency?	✓		
5.6 Are worksheet entries complete and correct?	✓		

6.0 Comments on any No response:

First Level Review Pam Anderson **Date** 8-14-06

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 6207537
W04969

Review Item	Yes (√)	No (√)	N/A (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other 1. Are all Nonconformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response:

Second Level Review: Sheryl A. Adam Date: 8-17-06

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

8/16/2006 7:48:55 AM

Lot No., Due Date: J6G210337,J6G220140; 09/01/2006

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6207539; RGAMMA Gamma by GER

SDG, Matrix: W04969; WATER

1.0 COC			
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	✓		
2.0 QC Batch			
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	✓		
2.2 Are the QC appropriate for the analysis included in the batch?	✓		
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	✓		
2.4 Does the Worksheets include a Tracer Vial label for each sample?			✓
3.0 QC & Samples			
3.1 Is the blank results, yield, and MDA within contract limits?	✓		
3.2 Is the LCS result, yield, and MDA within contract limits?	✓		
3.3 Are the MS/MSD results, yields, and MDA within contract limits?			✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?	✓		
3.5 Are the sample yields and MDAs within contract limits?	✓		
4.0 Raw Data			
4.1 Were results calculated in the correct units?	✓		
4.2 Were analysis volumes entered correctly?	✓		
4.3 Were Yields entered correctly?			✓
4.4 Were spectra reviewed/meet contractual requirements?	✓		
4.5 Were raw counts reviewed for anomalies?	✓		
5.0 Other			
5.1 Are all nonconformances included and noted?			✓
5.2 Are all required forms filled out?	✓		
5.3 Was the correct methodology used?	✓		
5.4 Was transcription checked?	✓		
5.5 Were all calculations checked at a minimum frequency?	✓		
5.6 Are worksheet entries complete and correct?	✓		

6.0 Comments on any No response:

First Level Review Pam Anderson **Date** 8-16-06

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 620753 9
W04949

Review Item	Yes (√)	No (√)	N/A (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other 1. Are all Nonconformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response:

Second Level Review: Sheryl A Adam Date: 8-16-06

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

8/16/2006 4:50:40 PM

Lot No., Due Date: J6G210334,J6G210337,J6G220140; 09/01/2006

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6207534; RALPHA-A Alpha by GPC-Am

SDG, Matrix: W04969; WATER

	Yes	No	N/A
8.0 Correction Calculation Protocol Used. OK	✓		
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	✓		
8.02 Final Results Are in the Appropriate Activity Units OK	✓		
8.03 Batch Contains the Required QC Appropriate for the Method OK	✓		
8.04 The Correct Tracer and QC Vials Where Used in the Samples OK	✓		
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	✓		
8.06 At Least the Minimum Sample Volume Was Used Analysis Volume => H9RQC1AA 128.00<200.00 H9RQJ1AC 146.80<200.00 H9RQT1AA 74.00<200.00 H9RQ01AA 111.60<200.00 H9RR21AC 127.70<200.00 H9TM11AC 61.10<200.00 H9TM21AC 37.70<200.00 Q:VB		✓	
8.07 The Correct Count Geometry was Used. OK	✓		
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	✓		
8.09 Method Blank is within Control Limits. OK	✓		
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. No Matrix Blanks (MBlks) found in Batch!			✓
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	✓		
8.13 QAS Specified Duplicate Equation Value within Control Limits. RPD > UCL : 20.0=> H9RQC1AD ALPHA 59.0 (RPD) Both < CRDL dup ok		✓	
8.14 LCS within Control Limits. OK	✓		
8.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!			✓
8.16 MS within Control Limits. No Matrix Spike Samples (MS) found in Batch!			✓
8.17 Tracer within Control Limits. OK	✓		
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) OK	✓		
8.19 Sample Specific MDC <= CRDL. MDC/MDA > CRDL => H9TM21AC ALPHA 4.3E+00>3.0E+00 Q:C1		✓	
8.2 Comments: NCM# 10-08497			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!			✓
8.22 Result < Mdc, Activity Not Detected, U Flag. Batch Positive Result => H9RR21AC ALPHA 1.1E+00 L:9.2E-01 H9TM11AC ALPHA 6.9E+00 L:2.2E+00		✓	
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => ALPHA	✓		

OK; No Callin Level Found => ALPHA			
8.24 Result + 3s >=0, Not Too Negative. OK	Yes ✓	No	N/A
8.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!	Yes	No	N/A ✓
8.26 Instruments have Current Calibrations.	Yes	No	N/A
8.27 Correct Count Library Used. No Count Library found in Batch Data!	Yes	No	N/A ✓
8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.3 Comments:			
8.31 Results Blank Subtracted as Appropriate. OK	Yes ✓	No	N/A

First Level Review Pam Anderson **Date** 8-16-06

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 620753 4
W04969

Review Item	Yes (√)	No (√)	N/A (√)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?		/	
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	/		
3. Are the correct isotopes reported?	/		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	/		
2. Does the blank result meet the Contract criteria?	/		
3. Is the blank result < the Contract Detection Limit?	/		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			/
5. Is the LCS recovery with contract acceptance criteria?	/		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	/		
8. Do the MS/MSD results and yields meet acceptance criteria?			/
9. Do the duplicate sample results and yields meet acceptance criteria?	/		
C. Other			
1. Are all Nonconformances included and noted?	/		
2. Are all required forms filled out?	/		
3. Was the correct methodology used?	/		
4. Was transcription checked?	/		
5. Were all calculations checked at a minimum frequency?	/		
6. Were units checked?	/		

Comments on any "No" response: See NCM

Second Level Review: Sheryl A. Adam Date: 8-18-06

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: **10-08497**
NCM Initiated By: Pam Anderson
Date Opened: 08/17/2006
Date Closed:

Classification: **Anomaly**
Status: **GLREVIEW**
Production Area: Environmental - Sep
Tests: Alpha by GPC-Am
Lot #'s (Sample #'s): J6G220140 (2),
QC Batches: 6207534

Nonconformance: MDA not met
Subcategory: Sample size reduced due to high residue mass

Problem Description / Root Cause

Name	Date	Description
Pam Anderson	08/17/2006	Sample H9MT21AC for alpha does not meet CRDL. It has high dissolved solids and requires a smaller aliquot.

Corrective Action

Name	Date	Corrective Action
Pam Anderson	08/17/2006	Note in case narrative.

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

Verified By	Due Date	Status	Notes
		This section not yet completed by QA.	

Approval History

Date Approved	Approved By	Position

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

8/16/2006 4:42:31 PM

Lot No., Due Date: J6G210334,J6G210337,J6G220140,J6G220138; 09/01/2006

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6207536; RBETA-SR Beta by GPC-Sr/Y

SDG, Matrix: W04969; WATER

	Yes	No	N/A
8.0 Correction Calculation Protocol Used. OK	✓		
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	✓		
8.02 Final Results Are in the Appropriate Activity Units OK	✓		
8.03 Batch Contains the Required QC Appropriate for the Method OK	✓		
8.04 The Correct Tracer and QC Vials Where Used in the Samples OK	✓		
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	✓		
8.06 At Least the Minimum Sample Volume Was Used Analysis Volume => H9RQT1AC 107.90<200.00 H9RQ01AC 185.30<200.00 H9RRF1AA 65.90<200.00 H9RR21AD 122.30<200.00 H9TM11AD 140.30<200.00 H9TM21AD 52.10<200.00 Q:VB		✓	
8.07 The Correct Count Geometry was Used. OK	✓		
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	✓		
8.09 Method Blank is within Control Limits. OK	✓		
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. No Matrix Blanks (MBlks) found in Batch!			✓
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	✓		
8.13 QAS Specified Duplicate Equation Value within Control Limits. OK (RPD)	✓		
8.14 LCS within Control Limits. OK	✓		
8.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!			✓
8.16 MS within Control Limits. No Matrix Spike Samples (MS) found in Batch!			✓
8.17 Tracer within Control Limits. OK	✓		
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) OK	✓		
8.19 Sample Specific MDC <= CRDL. MDC/MDA > CRDL => H9RQT1AC BETA 5.2E+00>4.0E+00 H9RQT1AD BETA 4.8E+00>4.0E+00 H9RRF1AA BETA 5.9E+00>4.0E+00 H9RR21AD BETA 5.2E+00>4.0E+00 H9TM11AD BETA 4.2E+00>4.0E+00 H9TM21AD BETA 1.1E+01>4.0E+00 Q:C1		✓	
8.2 Comments: UCM #10-08495			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!			✓
8.22 Result < Mdc, Activity Not Detected, U Flag. Batch Positive Result => H9RQC1AC BETA 6.5E+00 L:2.6E+00 H9RQJ1AD BETA 1.1E+01 L:3.2E+00		✓	

H9RQT1AC BETA 7.0E+00 L:5.2E+00
H9RQ01AC BETA 1.2E+01 L:3.2E+00
H9RRF1AA BETA 5.9E+03 L:5.9E+00
H9RRN1AA BETA 7.7E+02 L:2.9E+00
H9RRR1AA BETA 2.2E+03 L:2.8E+00
H9RRV1AA BETA 2.1E+03 L:2.8E+00
H9RR01AA BETA 7.5E+02 L:2.5E+00
H9RR21AD BETA 3.1E+03 L:5.2E+00
H9RR91AA BETA 4.2E+02 L:2.8E+00
H9TMV1AC BETA 4.2E+03 L:2.6E+00
H9TM11AD BETA 1.4E+03 L:4.2E+00
H9TM21AD BETA 9.4E+03 L:1.1E+01

	Yes	No	N/A
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => BETA OK; No Callin Level Found => BETA	✓		
8.24 Result + 3s >=0, Not Too Negative. OK	✓		
8.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!			✓
8.26 Instruments have Current Calibrations.			
8.27 Correct Count Library Used. No Count Library found in Batch Data!			✓
8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions)			
8.29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later versions)			
8.3 Comments:			
8.31 Results Blank Subtracted as Appropriate. OK	✓		

First Level Review Pam Anderson **Date** 8-16-04

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 6207536
WO 4969

Review Item	Yes (√)	No (√)	N/A (√)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?		✓	
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances included and noted?	✓		
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: See NCM

Second Level Review: Sherryl A Adam Date: 5-18-06

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: **10-08495**
NCM Initiated By: Pam Anderson
Date Opened: 08/17/2006
Date Closed:

Classification: **Anomaly**
Status: **GLREVIEW**
Production Area: Environmental - Sep
Tests: Beta by GPC-Sr/Y
Lot #'s (Sample #'s): J6G210334 (3), J6G210337 (1,6), J6G220140 (1,2),
QC Batches: 6207536

Nonconformance: MDA not met
Subcategory: Data accepted

Problem Description / Root Cause

Name	Date	Description
Pam Anderson	08/17/2006	The beta samples listed do not meet CRDL, but their results >MDA>CRDL.

Corrective Action

Name	Date	Corrective Action
Pam Anderson	08/17/2006	None at this time.

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

Verified By	Due Date	Status	Notes
		This section not yet completed by QA.	

Approval History

Date Approved	Approved By	Position

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

8/31/2006 9:47:28 AM

Lot No., Due Date: J6G210334; 09/01/2006

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6207538; RSR85907 Sr-85/90 by GPC-7

SDG, Matrix: W04969; WATER

	Yes	No	N/A
8.0 Correction Calculation Protocol Used. OK	✓		
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	✓		
8.02 Final Results Are in the Appropriate Activity Units OK	✓		
8.03 Batch Contains the Required QC Appropriate for the Method OK	✓		
8.04 The Correct Tracer and QC Vials Where Used in the Samples OK	✓		
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	✓		
8.06 At Least the Minimum Sample Volume Was Used OK	✓		
8.07 The Correct Count Geometry was Used. OK	✓		
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	✓		
8.09 Method Blank is within Control Limits. OK	✓		
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. No Matrix Blanks (MBlks) found in Batch!			✓
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	✓		
8.13 QAS Specified Duplicate Equation Value within Control Limits. OK (RPD)	✓		
8.14 LCS within Control Limits. OK	✓		
8.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!			✓
8.16 MS within Control Limits. No Matrix Spike Samples (MS) found in Batch!			✓
8.17 Tracer within Control Limits. OK	✓		
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) OK	✓		
8.19 Sample Specific MDC <= CRDL. OK	✓		
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!			✓
8.22 Result < Mdc, Activity Not Detected, U Flag. No Positive Results OK	✓		
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => SR-90 OK; No Callin Level Found => SR-90	✓		
8.24 Result + 3s >=0, Not Too Negative. OK	✓		
8.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!			✓

8.26 Instruments have Current Calibrations.	Yes	No	N/A
8.27 Correct Count Library Used. No Count Library found in Batch Data!	Yes	No	N/A ✓
8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.3 Comments:			
8.31 Results Blank Subtracted as Appropriate. OK	Yes ✓	No	N/A

First Level Review Pam Anderson **Date** 8·31·06

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 620753 W04969

Review Item	Yes (√)	No (√)	N/A (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?	√		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	√		
3. Are the correct isotopes reported?	√		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	√		
2. Does the blank result meet the Contract criteria?	√		
3. Is the blank result < the Contract Detection Limit?	√		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			√
5. Is the LCS recovery with contract acceptance criteria?	√		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	√		
8. Do the MS/MSD results and yields meet acceptance criteria?			√
9. Do the duplicate sample results and yields meet acceptance criteria?	√		
C. Other 1. Are all Nonconformances included and noted?			√
2. Are all required forms filled out?	√		
3. Was the correct methodology used?	√		
4. Was transcription checked?	√		
5. Were all calculations checked at a minimum frequency?	√		
6. Were units checked?	√		

Comments on any "No" response:

Second Level Review Sheryl R Adam Date: 8-31-06

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

8/31/2006 9:48:04 AM

Lot No., Due Date: J6G210337,J6G220140,J6G220138; 09/01/2006

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6207540; RSR85907 Sr-85/90 by GPC-7

SDG, Matrix: W04969; WATER

	Yes	No	N/A
8.0 Correction Calculation Protocol Used. OK	✓		
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	✓		
8.02 Final Results Are in the Appropriate Activity Units OK	✓		
8.03 Batch Contains the Required QC Appropriate for the Method OK	✓		
8.04 The Correct Tracer and QC Vials Where Used in the Samples OK	✓		
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	✓		
8.06 At Least the Minimum Sample Volume Was Used Analysis Volume => H9TM21AF 461.00<1000.00 Q:VB		✓	
8.07 The Correct Count Geometry was Used. OK	✓		
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. Count Duration => H9TM21AF 35.0<100.0 H9TM21AF 30.0<100.0 Q:VD		✓	
8.09 Method Blank is within Control Limits. OK	✓		
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. No Matrix Blanks (MBlks) found in Batch!			✓
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	✓		
8.13 QAS Specified Duplicate Equation Value within Control Limits. OK (RPD)	✓		
8.14 LCS within Control Limits. OK	✓		
8.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!			✓
8.16 MS within Control Limits. No Matrix Spike Samples (MS) found in Batch!			✓
8.17 Tracer within Control Limits. OK	✓		
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) OK	✓		
8.19 Sample Specific MDC <= CRDL. OK	✓		
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!			✓
8.22 Result < Mdc, Activity Not Detected, U Flag. Batch Positive Result => H9RR21AF SR-90 1.3E+03 L:8.2E-01 H9RR21AF SR-90 1.3E+03 L:1.1E+00 H9RR21AF SR-90 1.3E+03 L:6.8E-01 H9TMV1AD SR-90 2.4E+03 L:1.2E+00 H9TMV1AD SR-90 2.5E+03 L:1.3E+00 H9TMV1AD SR-90 2.4E+03 L:8.9E-01 H9TM11AF SR-90 6.1E+02 L:5.3E-01 H9TM11AF SR-90 6.1E+02 L:5.3E-01 H9TM11AF SR-90 6.1E+02 L:3.7E-01 H9TM21AF SR-90 5.2E+03 L:2.3E+00 H9TM21AF SR-90 5.3E+03 L:3.0E+00		✓	

H9TM21AF SR-90 5.3E+03 L:1.9E+00

8.23 Result <= Action Level, when Defined. OK; No Action Level Found => SR-90 OK; No Callin Level Found => SR-90	Yes ✓	No	N/A
8.24 Result + 3s >=0, Not Too Negative. OK	Yes ✓	No	N/A
8.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!	Yes	No	N/A ✓
8.26 Instruments have Current Calibrations.	Yes	No	N/A
8.27 Correct Count Library Used. No Count Library found in Batch Data!	Yes	No	N/A ✓
8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.3 Comments:			
8.31 Results Blank Subtracted as Appropriate. OK	Yes ✓	No	N/A

First Level Review Pam Anderson **Date** 8-31-06

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 6L07540
W04969

Review Item	Yes (√)	No (√)	N/A (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?	√		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	√		
3. Are the correct isotopes reported?	√		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	√		
2. Does the blank result meet the Contract criteria?	√		
3. Is the blank result < the Contract Detection Limit?	√		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			√
5. Is the LCS recovery with contract acceptance criteria?	√		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	√		
8. Do the MS/MSD results and yields meet acceptance criteria?			√
9. Do the duplicate sample results and yields meet acceptance criteria?	√		
C. Other 1. Are all Nonconformances included and noted?			√
2. Are all required forms filled out?	√		
3. Was the correct methodology used?	√		
4. Was transcription checked?	√		
5. Were all calculations checked at a minimum frequency?	√		
6. Were units checked?	√		

Comments on any "No" response:

Second Level Review: Sheryl A Adam Date: 8-31-06

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

8/7/2006 2:29:17 PM

Lot No., Due Date: J6G210334,J6G210350,J6G210343,J6G220141; 09/01/2006

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6207529; RTC99 Tc-99 by LSC

SDG, Matrix: W04969; WATER

	Yes	No	N/A
8.0 Correction Calculation Protocol Used. OK	✓		
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	✓		
8.02 Final Results Are in the Appropriate Activity Units OK	✓		
8.03 Batch Contains the Required QC Appropriate for the Method OK	✓		
8.04 The Correct Tracer and QC Vials Where Used in the Samples Incorrect Tracer/Vial => H9RVF1AF TCSG<>TCSE Q:V9		✓	
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	✓		
8.06 At Least the Minimum Sample Volume Was Used OK	✓		
8.07 The Correct Count Geometry was Used. OK	✓		
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	✓		
8.09 Method Blank is within Control Limits. OK	✓		
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. No Matrix Blanks (MBlks) found in Batch!			✓
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	✓		
8.13 QAS Specified Duplicate Equation Value within Control Limits. RPD > UCL : 20.0=> H9RQ01AF TC-99 52.0 (RPD)		✓	
8.14 LCS within Control Limits. OK	✓		
8.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!			✓
8.16 MS within Control Limits. OK	✓		
8.17 Tracer within Control Limits. No Tracers found in Batch!			✓
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) No Tracers found in Batch!			✓
8.19 Sample Specific MDC <= CRDL. OK	✓		
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!			✓
8.22 Result < Mdc, Activity Not Detected, U Flag. No Positive Results OK Calc_IDL Not Calculated	✓		
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => TC-99 OK; No Callin Level Found => TC-99	✓		
8.24 Result + 3s >=0, Not Too Negative. OK	✓		
8.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!			✓

8.26 Instruments have Current Calibrations.	Yes	No	N/A
8.27 Correct Count Library Used. No Count Library found in Batch Data!	Yes	No	N/A ✓
8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.3 Comments:			
8.31 Results Blank Subtracted as Appropriate. OK	Yes ✓	No	N/A

First Level Review Pam Anderson **Date** 8-7-04

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 6207529
W04969

Review Item	Yes (√)	No (√)	N/A (√)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?	/		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	/		
3. Are the correct isotopes reported?	/		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	/		
2. Does the blank result meet the Contract criteria?	/		
3. Is the blank result < the Contract Detection Limit?	/		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			/
5. Is the LCS recovery with contract acceptance criteria?	/		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	/		
8. Do the MS/MSD results and yields meet acceptance criteria?			/
9. Do the duplicate sample results and yields meet acceptance criteria?	/		
C. Other			
1. Are all Nonconformances included and noted?			/
2. Are all required forms filled out?	/		
3. Was the correct methodology used?	/		
4. Was transcription checked?	/		
5. Were all calculations checked at a minimum frequency?	/		
6. Were units checked?	/		

Comments on any "No" response:

Second Level Review: Sherryl A Adam Date: 8-7-06

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

8/2/2006 4:39:10 PM

Lot No., Due Date: J6G210334,J6G210337,J6G210350,J6G210343,J6G220140,J6G220138; 09/01/2006

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6207533; RTRITIUM H-3 by LSC

SDG, Matrix: W04969; WATER

	Yes	No	N/A
8.0 Correction Calculation Protocol Used. OK	✓		
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	✓		
8.02 Final Results Are in the Appropriate Activity Units OK	✓		
8.03 Batch Contains the Required QC Appropriate for the Method OK	✓		
8.04 The Correct Tracer and QC Vials Where Used in the Samples OK	✓		
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	✓		
8.06 At Least the Minimum Sample Volume Was Used Analysis Volume => H9RQJ1AA 5.00<10.00 H9RR21AA 5.00<10.00 H9RVF1AA 5.00<10.00 H9RVV1AA 5.00<10.00 H9RV01AA 5.00<10.00 H9TMV1AA 5.00<10.00 H9TM11AA 5.00<10.00 H9TM21AA 5.00<10.00 Q:VB		✓	
8.07 The Correct Count Geometry was Used. Count Geometry => H93GJ1AF SVP15/5<>SVP10/10 H93GJ1AG SVP15/5<>SVP10/10 H93GJ1AD SVP15/5<>SVP10/10 H93GJ1AE SVP15/5<>SVP10/10 H9RQJ1AA SVP15/5<>SVP10/10 H9RR21AA SVP15/5<>SVP10/10 H9RR21AG SVP15/5<>SVP10/10 H9RVF1AA SVP15/5<>SVP10/10 H9RVV1AA SVP15/5<>SVP10/10 H9RV01AA SVP15/5<>SVP10/10 H9TMV1AA SVP15/5<>SVP10/10 H9TM11AA SVP15/5<>SVP10/10 H93GJ1AH SVP15/5<>SVP10/10 H93GJ1AA SVP15/5<>SVP10/10 H93GJ1AC SVP15/5<>SVP10/10 H9TM21AA SVP15/5<>SVP10/10 Q:VC		✓	
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	✓		
8.09 Method Blank is within Control Limits. OK	✓		
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. OK	✓		
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	✓		
8.13 QAS Specified Duplicate Equation Value within Control Limits. RPD > UCL : 20.0=> H9RR21AG H-3 210.0 (RPD)		✓	
8.14 LCS within Control Limits. OK	✓		
8.15 MLCS within Control Limits. OK	✓		
8.16 MS within Control Limits. No Matrix Spike Samples (MS) found in Batch!			✓
8.17 Tracer within Control Limits. No Tracers found in Batch!			✓
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) No Tracers found in Batch!			✓

8.19 Sample Specific MDC <= CRDL. OK	Yes ✓	No	N/A
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!	Yes	No	N/A ✓
8.22 Result < Mdc, Activity Not Detected, U Flag. No Positive Results OK Calc_IDL Not Calculated	Yes ✓	No	N/A
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => H-3 OK; No Callin Level Found => H-3	Yes ✓	No	N/A
8.24 Result + 3s >=0, Not Too Negative. OK	Yes ✓	No	N/A
8.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!	Yes	No	N/A ✓
8.26 Instruments have Current Calibrations.	Yes	No	N/A
8.27 Correct Count Library Used. No Count Library found in Batch Data!	Yes	No	N/A ✓
8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.3 Comments:			
8.31 Results Blank Subtracted as Appropriate. OK	Yes ✓	No	N/A

First Level Review Pam Anderson **Date** 8-2-06

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 6207533
W04969

Review Item	Yes (√)	No (√)	N/A (√)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?	/		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	/		
3. Are the correct isotopes reported?	/		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	/		
2. Does the blank result meet the Contract criteria?	/		
3. Is the blank result < the Contract Detection Limit?	/		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			/
5. Is the LCS recovery with contract acceptance criteria?	/		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	/		
8. Do the MS/MSD results and yields meet acceptance criteria?			/
9. Do the duplicate sample results and yields meet acceptance criteria?	/		
C. Other			
1. Are all Nonconformances included and noted?			/
2. Are all required forms filled out?	/		
3. Was the correct methodology used?	/		
4. Was transcription checked?	/		
5. Were all calculations checked at a minimum frequency?	/		
6. Were units checked?	/		

Comments on any "No" response:

Second Level Review: Sherryl R Adam Date: 8-3-06

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

8/21/2006 1:40:15 PM

Lot No., Due Date: J6G210350,J6G210343,J6G220141; 09/01/2006

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6207532; RUNAT UNat by KPA

SDG, Matrix: W04969; WATER

	Yes	No	N/A
8.0 Correction Calculation Protocol Used. OK	✓		
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	✓		
8.02 Final Results Are in the Appropriate Activity Units OK	✓		
8.03 Batch Contains the Required QC Appropriate for the Method OK	✓		
8.04 The Correct Tracer and QC Vials Where Used in the Samples Incorrect Tracer/Vial => H93GG1AD UNSC<>UNSF Q:V9		✓	
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	✓		
8.06 At Least the Minimum Sample Volume Was Used No Count Analysis Size found in Batch Data!			✓
8.07 The Correct Count Geometry was Used. No Count Geometry found in Batch Data!			✓
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. No Count Duration Field Found in Batch Data!			✓
8.09 Method Blank is within Control Limits. OK	✓		
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. No Matrix Blanks (MBlks) found in Batch!			✓
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	✓		
8.13 QAS Specified Duplicate Equation Value within Control Limits. OK (RPD)	✓		
8.14 LCS within Control Limits. OK	✓		
8.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!			✓
8.16 MS within Control Limits. OK	✓		
8.17 Tracer within Control Limits. No Tracers found in Batch!			✓
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) No Tracers found in Batch!			✓
8.19 Sample Specific MDC <= CRDL. OK	✓		
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!			✓
8.22 Result < Mdc, Activity Not Detected, U Flag. Batch Positive Result => H9RV01AE Uranium 1.0E+01 L:8.2E-02 H9RVF1AE Uranium 2.6E+00 L:8.1E-02 H9RVV1AE Uranium 9.1E-01 L:8.2E-02 H9TM71AC Uranium 1.1E+00 L:8.3E-02 H9TM81AC Uranium 1.1E+00 L:8.3E-02 H9TM91AC Uranium 2.3E+01 L:8.2E-02		✓	
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => Uranium OK; No Callin Level Found => Uranium	✓		

8.24 Result + 3s >=0, Not Too Negative. OK	Yes ✓	No	N/A
8.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!	Yes	No	N/A ✓
8.26 Instruments have Current Calibrations.	Yes	No	N/A
8.27 Correct Count Library Used. No Count Library found in Batch Data!	Yes	No	N/A ✓
8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.3 Comments:			
8.31 Results Blank Subtracted as Appropriate. OK	Yes ✓	No	N/A

First Level Review Pam Anderson **Date** 8-21-06

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 620753L
W04696

Review Item	Yes (√)	No (√)	N/A (√)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review: Sheryl R Adam Date: 8-21-06

PNNL J6G210334
W04969
Due 9.4.06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W06-007-62**

Page 1 of 1

Collector DURATEK L. D. WALL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W06-007	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, JULY 2006	DTS- SAWS H 109	**Ice Chest No.** GRP 03-004 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol RCRA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1JLV8		W	7-20-06	0933	1x20-mL P	Activity Scan	None
B1JLV8		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2) H9RQC	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEK L. D. WALL		L. D. Wall	JUL 20 2006 1345	DAVID HARRISON			JUL 20 2006 1345
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S	= Soil	DS	= Drum Solid
SE	= Sediment	DL	= Drum Liquid
SO	= Solid	T	= Tissue
SL	= Sludge	WI	= Wine
W	= Water	L	= Liquid
O	= Oil	V	= Vegetation
A	= Air	X	= Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W06-007-50**

Page 1 of 1

Collector DURATEK L. D. WALL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W06-007	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, JULY 2006	DTS- SAMS H 109	**Ice Chest No.** GRR 03-004 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol RCRA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "T", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1JM76		W	7-20-06	1027	1x20-mL P	Activity Scan	None
B1JM76		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2) H9RQJ	HNO3 to pH <2
B1JM76		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1JM76		W			1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1JM76		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2

Relinquished By DURATEK L. D. WALL Print L. D. Wall Sign	Date/Time 1349 JUL 20 2006	Received By DAVID HARBISON Print Sign	Date/Time 1349 JUL 20 2006
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PNNL J6G210334
W04969
Due 9.4.06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W06-007-56**

Page 1 of 1

Collector DURATEK L. D. WALL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W06-007	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, JULY 2006	DTS - SAWS H 109	**Ice Chest No.** GRP 03-004 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol RCRA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1JLV5		W	7-20-06	0850	1x20-mL P	Activity Scan	None
B1JLV5		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2) H9RQT	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEK L. D. WALL	L. D. Wall		JUL 20 2006 1345	DAVID HARBISON			JUL 20 2006 1345
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PNNL 06G-210334
W04969
DURATEK

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Due 9.4.06

C.O.C. # **W06-007-44**

Collector L. D. WALL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W06-007	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, JULY 2006	DTS- SHWS H 109	**Ice Chest No.** GRP 03-004 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol RCRA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1JLV3		W	7-20-06	1122	1x20-mL P	Activity Scan	None
B1JLV3		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2) H9RQ0	HNO3 to pH <2
B1JLV3		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1JLV3		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEK L. D. WALL	L. D. Wall		JUL 20 2006 1345	DAVID HARBINSON			JUL 20 2006 1345
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wipe	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

W06-007-56
W06-007-62
W06-007-50

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 7/20/06 13:45

Client: DUNATEK PGW SDG #: W04969 NA [ ] SAF #: W06-007 NA [

Work Order Number: J6G210334 Chain of Custody # W06-007-56, 44, 62, 50

Shipping Container ID: _____ Air Bill # W06-007-44

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? Yes [✓] No [ ]
4. Cooler temperature: _____ NA [✓] 5: Vermiculite/packing materials is NA [✓] Wet [ ] Dr
6. Number of samples in shipping container: 17
7. Sample holding times exceeded? NA [ ] Yes [ ] No [ ]
8. Samples have:
   ___ tape
   ✓ custody seals
   ✓ hazard labels
   ✓ appropriate samples labels
9. Samples are:
   ✓ in good condition
   ___ broken
   ___ leaking
   ___ have air bubbles
   (Only for samples requiring head space)
10. Sample pH taken? YES NA [ ] pH<2 [✓] pH>2 [✓] adjusted pH [ ]
11. Sample Location, Sample Collector Listed? *
    *For documentation only. No corrective action needed. Yes [✓] No [ ]
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): _____

Sample Custodian [signature] Date: 7/20/06 13:45

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 12/05, Rev. 6

PNNL J6G210337
W04969
Due 9-4-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **G06-007-45**

Page 1 of 1

Collector Ferritto & Mackey	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. G06-007	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 1NR2-RB, JULY 2006		**Ice Chest No.** **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1JK94		W	7/20/06	0940	1x1000-mL P	9310_ALPHABETA_GPC: Gross Beta (1)	HNO3 to pH <2
B1JK94		W	"	"	1x20-mL P	Activity Scan H9RRF	None

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
J. Ferritto		J. Ferritto	7/20/06 1580	DAVID HARBI			7-20-06 1500
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S	=	Soil	DS	=	Drum Solid
SE	=	Sediment	DL	=	Drum Liqui
SO	=	Solid	T	=	Tissue
SL	=	Sludge	WI	=	Wipe
W	=	Water	L	=	Liquid
O	=	Oil	V	=	Vegetation
A	=	Air	X	=	Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PNNL U66210337 W04969

Due 9-4-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **G06-007-33**

Collector Ferritto & MacKay	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. G06-007	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 1NR2-RB, JULY 2006		**Ice Chest No.** **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1JK82		W	7/20/06	1015	1x1000-mL P	9310_ALPHABETA_GPC: Gross Beta (1)	HNO3 to pH <2
B1JK82		W	"	"	1x20-mL P	Activity Scan H9RRN	None

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
J. Ferritto	J. Ferritto		7/20/06 1500		FED EX Smr		7-21-06 ~~7/20/06 1500~~
Relinquished By			Date/Time	Received By	DAVID HARBINSON		Date/Time ~~7/20/06~~ 15
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PNNL JG210337
W04969
Due 9-4-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **G06-007-31**

Collector Hawkes / Fulford	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. G06-007	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 1NR2-RB, JULY 2006		**Ice Chest No.** **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1JK80		W	7/20/06	10:30	1x1000-mL P	9310_ALPHABETA_GPC: Gross Beta (1)	HNO3 to pH <2
B1JK80		W	7/20/06	10:30	1x20-mL P	Activity Scan H9RRR	None

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Mike Hawkes / [illegible]			7-20-06 15:00	DAVID HARBINSON			7/20/06 15:00
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S	= Soil	DS	= Drum Solid
SE	= Sediment	DL	= Drum Liquid
SO	= Solid	T	= Tissue
SL	= Sludge	WI	= Wine
W	= Water	L	= Liquid
O	= Oil	V	= Vegetation
A	= Air	X	= Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PNNL J66210337
W04969
Due 9-4-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **G06-007-41**

Collector Hawkins / Fulton	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. G06-007	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 1NR2-RB, JULY 2006		**Ice Chest No.** **Temp.**
Shipped To (Lab) Severn Trent Incornorated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1JK90		W	7/20/06	9:40	1x1000-mL P	9310_ALPHABETA_GPC: Gross Beta (1)	HNO3 to pH <2
B1JK90		W	7/20/06	9:40	1x20-mL P	Activity Scan H9RRV	None

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
mike Hawkins			7-20-06 15:00	DAVID HARBINSON			7/20/06 15:00
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PNNL J6G210337 W04969 Due 9-4-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **G06-007-43**

Page 1 of 1

Collector Ferritto & Mackey	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. G06-007	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 1NR2-RB, JULY 2006		**Ice Chest No.** **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1JK92		W	7/20/06	1030	1x1000-mL P	9310_ALPHABETA_GPC: Gross Beta (1)	HNO3 to pH <2
B1JK92		W	"	"	1x20-mL P	Activity Scan H9RR0	None

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
J. Ferritto	J. Ferritto		7/20/06 15:00		FED EXPR		7-20-06 7/20/06 1500
Relinquished By			Date/Time	Received By			Date/Time
				DAVID HARBINSON			7/20/06 15:00
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PNNL J66210337
W04969 Due 9-4-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **G06-007-35**

Page 1 of 1

Collector Hawkes / Fuston	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. G06-007	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 1NR2-RB, JULY 2006		**Ice Chest No.** **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1JK84		W	7/20/06	10:45	1x20-mL P	Activity Scan	None
B1JK84		W			1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1JK84		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2) H9RR2	HNO3 to pH <2
B1JK84		W			3x1000-mL G/P	GAMMA_GS: List-1 (10)	HNO3 to pH <2
B1JK84		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Mike Hawkes			7-20-06 1500	Feb			
Relinquished By			Date/Time	Received By			Date/Time
				David HARBISON			7/20/06 1500
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S	= Soil	DS	= Drum Solid
SE	= Sediment	DL	= Drum Liqui
SO	= Solid	T	= Tissue
SL	= Sludge	WI	= Wine
W	= Water	L	= Liquid
O	= Oil	V	= Vegetation
A	= Air	X	= Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PNNL J6G210337
WO4969
Due 9-4-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **G06-007-39**

Page 1 of 1

Collector Hawkes / Fulton	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. G06-007	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 1NR2-RB, JULY 2006		**Ice Chest No.** **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1JK88		W	7/20/06	9:55	1x1000-mL P	9310_ALPHABETA_GPC: Gross Beta (1)	HNO3 to pH <2
B1JK88		W	7/20/06	9:55	1x20-mL P	Activity Scan H9RR9	None

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Mike Hawkes	Mike Hawkes		7-20-06 1510	DAVID HARRISON			7/20/06 1510
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

606-007-33
606-007-31
606-007-41
606-007-43
606-007-35
606-007-39

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 7/20/06 15:00

Client: PNNL SDG #: W04969 NA [ ] SAF #: G06-007 NA [

Work Order Number: J6G210337 Chain of Custody # 606-007-45

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? Yes [✓] No [ ]
4. Cooler temperature: _____ NA [✓] 5. Vermiculite/packing materials is NA [✓] Wet [ ] Dr
6. Number of samples in shipping container: 21
7. Sample holding times exceeded? NA [ ] Yes [ ] No [ ]
8. Samples have:
   - ✓ tape
   - ✓ custody seals
   - ✓ hazard labels
   - ✓ appropriate samples labels
9. Samples are:
   - ✓ in good condition
   - ___ broken
   - ___ leaking
   - ___ have air bubbles (Only for samples requiring head space)
10. Sample pH taken? YES NA [ ] pH<2 [✓] pH>2 [✓] adjusted pH [ ]
11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): _____

Sample Custodian: [signature] Date: 7/20/06 15:00

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 12/05, Rev. 6

PNNL JGG210343 W04969

Due 9-4-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I06-044-2**

Page 1 of 1

Collector D.P. CONNOLLY	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I06-044	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 2ZP1-LOL JUNE 2006	SAWS-410C	**Ice Chest No.** Smpl 595 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol CERCLA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "T", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1JH77		W	7-2006	0959	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1JH77		W			1x20-mL P	Activity Scan H9RVF	None
B1JH77		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1JH77		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1JH77		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

Relinquished By	Received By
Print D.P. CONNOLLY Sign JUL 20 2006 Date/Time 1445	Print DAVID HAB Binso Sign JUL 20 2006 Date/Time 1445
Relinquished By Date/Time	Received By Date/Time
Relinquished By Date/Time	Received By Date/Time
Relinquished By Date/Time	Received By Date/Time

Matrix *

S	= Soil	DS	= Drum Solid
SE	= Sediment	DL	= Drum Liqui
SO	= Solid	T	= Tissue
SL	= Sludge	WI	= Wine
W	= Water	L	= Liquid
O	= Oil	V	= Vegetation
A	= Air	X	= Other

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 7-20-06 14:45

Client: PGW SDG #: WD4969 NA [ ] SAF #: I06-044 NA [

Work Order Number: J6G210343 Chain of Custody # I06-044-2

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? Yes [✓] No [ ]
4. Cooler temperature: _____ NA [ ] 5. Vermiculite/packing materials is NA [ ] Wet [ ] Dr
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA [✓] Yes [ ] No [ ]
8. Samples have:
   _____ tape
   _____ custody seals
   _____ hazard labels
   ✓ appropriate samples labels
9. Samples are:
   ✓ in good condition
   _____ broken
   _____ leaking
   _____ have air bubbles
   (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [✓] pH>2 [✓] adjusted pH [ ]
11. Sample Location, Sample Collector Listed? *
    *For documentation only. No corrective action needed. Yes [✓] No [ ]
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): _____

Sample Custodian: [signature] Date: 7/21/06

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 12/05, Rev. 6

PNNL J66210350
W04969
Due 9-4-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **A06-007-7**

Collector D.P. CONNOLLY	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. A06-007	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title LLWMA(4)-PA, JULY 2006	SAWS-H106	**Ice Chest No.** SM1595 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol Other	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1JK31		W	7-2006	0850	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1JK31		W			1x20-mL P	Activity Scan H9RVV	None
B1JK31		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1JK31		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1JK31		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
D.P. CONNOLLY			JUL 20 2006 1445	DAVID HARBISON			JUL 20 2006 1445
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

PNNL J66210350
W04969 Due 9-4-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **A06-007-1**

Page 1 of 1

Collector D. P. CONNOLLY	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. A06-007	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title LLWMA(4)-PA, JULY 2006	SAWS-H106	**Ice Chest No.** SML 595 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol Other	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1JK27		W	7-20-06	1130	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1JK27		W			1x20-mL P	Activity Scan H9RVO	None
B1JK27		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1JK27		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1JK27		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
D. P. CONNOLLY			JUL 20 2006 1445	DAVID HARDISON			JUL 20 2006 1445
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 7/20/06 14:45

Client: PNNL SDG #: W04946 NA [ ] SAF #: A06-007-1 NA [

Work Order Number: J6G210350 Chain of Custody # I06-044-2

Shipping Container ID: _____ Air Bill # A06-007-7

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? Yes [✓] No [ ]
4. Cooler temperature: _____ NA [✓] 5. Vermiculite/packing materials is NA [✓] Wet [ ] Dr
6. Number of samples in shipping container: 18
7. Sample holding times exceeded? NA [ ] Yes [ ] No [ ]
8. Samples have:
   - ✓ tape
   - ✓ custody seals
   - ✓ hazard labels
   - ✓ appropriate samples labels
9. Samples are:
   - ✓ in good condition
   - ____ broken
   - ____ leaking
   - ____ have air bubbles (Only for samples requiring head space)
10. Sample pH taken? YES NA [ ] pH<2 [✓] pH>2 [✓] adjusted pH [ ]
11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): _____

Sample Custodian: [signature] Date: 7/20/06 14:45

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 12/05, Rev. 6

PNNL JGG220138
W04969

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Due 9.4.06

C.O.C. # I06-047-2

Page 1 of 1

Collector R.T. SICKLE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I06-047	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 100NR2IAM-LOI JULY 2006	DTS-SAWS-H106	**Ice Chest No.** SMC595 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol CERCLA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "T", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1JKT1		W	7-21-06	0857	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1JKT1		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Gross Beta (1) H9TMV	HNO3 to pH <2
B1JKT1		W	↓	↓	1x20-mL P	Activity Scan	None
B1JKT1		W	↓	↓	3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
R.T. SICKLE			JUL 21 2006 1331		S. Welch	S. Welch	JUL 21 2006 1331
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 7-21-06 13:31

Client: PGW SDG #: W04969 NA [ ] SAF #: I06-047 NA [

Work Order Number: J66220138 Chain of Custody # I06-047-2

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? Yes [✓] No [ ]
4. Cooler temperature: _____ NA [✓]
5. Vermiculite/packing materials is NA [✓] Wet [ ] Dr
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA [✓] Yes [ ] No [ ]
8. Samples have:
   _____ tape
   _____ custody seals
   _____ hazard labels
   _____ appropriate samples labels
9. Samples are:
   ✓ in good condition
   _____ broken
   _____ leaking
   _____ have air bubbles
   (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [✓] pH>2 [✓] adjusted pH [ ]
11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): _____

Sample Custodian: S. Welch Date: 7-21-06 13:31

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 12/05, Rev. 6

PNNL 16G220140 W04969 Due 9-4-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **G06-007-16**

Collector R.T. SICKLE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. G06-007	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 1NR2-RB, JULY 2006	DTS-SAWS-H106	**Ice Chest No.** SML595 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1JK66		W	7-21-06	1115	1x20-mL P	Activity Scan	None
B1JK66		W			1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1JK66		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2) H9TM1	HNO3 to pH <2
B1JK66		W			3x1000-mL G/P	GAMMA_GS: List-1 (10)	HNO3 to pH <2
B1JK66		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2

Relinquished By	Received By
Print R.T. SICKLE Sign Date/Time JUL 21 2006 1331	Print S. Welch Sign S. Welch Date/Time JUL 21 2006 1331
Relinquished By Date/Time	Received By Date/Time
Relinquished By Date/Time	Received By Date/Time
Relinquished By Date/Time	Received By Date/Time

Matrix *

S	= Soil	DS	= Drum Solid
SE	= Sediment	DL	= Drum Liqui
SO	= Solid	T	= Tissue
SL	= Sludge	WI	= Wine
W	= Water	L	= Liquid
O	= Oil	V	= Vegetation
A	= Air	X	= Other

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

PNNL J6G220140 W04969 Due 9-4-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **G06-007-13**

Collector R.T. SICKLE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. G06-007	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 1NR2-RB, JULY 2006	DTJ-SAWS-H106	**Ice Chest No.** SML 595 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1JK62		W	7-21-06	0954	1x20-mL P	Activity Scan	None
B1JK62		W	↓	↓	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1JK62		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2) H9TM2	HNO3 to pH <2
B1JK62		W	↓	↓	3x1000-mL G/P	GAMMA_GS: List-1 (10)	HNO3 to pH <2
B1JK62		W	↓	↓	3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2

Relinquished By R.T. SICKLE Print Sign	Date/Time 1331 JUL 21 2006	Received By S. Welch Print S. Welch Sign	Date/Time 1331 JUL 21 2006
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 7-21-06 13:31

Client: PGW SDG #: W04969 NA [ ] SAF #: G06-007 NA [

Work Order Number: 16G220140 Chain of Custody # G06-007-16

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? Yes [✓] No [ ]
4. Cooler temperature: _____ NA [ ] 5. Vermiculite/packing materials is NA [✓] Wet [ ] Dr
6. Number of samples in shipping container: 2
7. Sample holding times exceeded? NA [✓] Yes [ ] No [ ]
8. Samples have:
   _____ tape
   _____ custody seals
   _____ hazard labels
   ✓ appropriate samples labels
9. Samples are:
   ✓ in good condition
   _____ broken
   _____ leaking
   _____ have air bubbles
   (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [✓] pH>2 [✓] adjusted pH [ ]
11. Sample Location, Sample Collector Listed? *
    *For documentation only. No corrective action needed. Yes [✓] No [ ]
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): _____

Sample Custodian: L. Welch Date: 7-21-06 13:31

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 12/05, Rev. 6

PNNL J66220141 W04969 Due 9-4-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I06-048-6**

Page 1 of 1

Collector DURATEK L. D. WALL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I06-048	**Sampling Origin** Hanford site	**Purchase Order/Charge Code**
Project Title 2UP1-LOI JULY 2006	DTS - SAWS H,09	**Ice Chest No.** GRP 03-004 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1JKV0		W	7-21-06	1029	1x20-mL P	Activity Scan	None
B1JKV0		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1) H9TM7	HCl to pH <2
B1JKV0		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEK L. D. WALL	L.D. Wall	L.D. Wall	JUL 21 2006	S. Welch	S. Welch	S. Welch	JUL 21 2006 1400
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S	= Soil	DS	= Drum Solid
SE	= Sediment	DL	= Drum Liqui
SO	= Solid	T	= Tissue
SL	= Sludge	WI	= Wine
W	= Water	L	= Liquid
O	= Oil	V	= Vegetation
A	= Air	X	= Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PNNL J66-220141
W04969
Due 9-4-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I06-048-5**

Page 1 of 1

Collector DURATEK L. D. WALL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I06-048	**Sampling Origin** Hanford site	**Purchase Order/Charge Code**
Project Title 2UP1-LOI, JULY 2006	DTS - SAMS H109	**Ice Chest No.** GRP03-004 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1JKT9		W	7-21-06	1029	1x20-mL P	Activity Scan	None
B1JKT9		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1) ~~HGM~~ DW 7-22-06	HCl to pH <2
B1JKT9		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
						H9TM8	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEK L. D. WALL	L. D. Wall	L. D. Wall	JUL 21 2006 14:00	S. Welch	S. Welch	S. Welch	JUL 21 2006 14:00
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S	= Soil	DS	= Drum Solid
SE	= Sediment	DL	= Drum Liqui
SO	= Solid	T	= Tissue
SL	= Sludge	WI	= Wine
W	= Water	L	= Liquid
O	= Oil	V	= Vegetation
A	= Air	X	= Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PNNL J66-220141 W04969 Due 9-4-06

DUHATEK

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I06-048-2**

Page 1 of 1

Collector L. D. WALL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I06-048	**Sampling Origin** Hanford site	**Purchase Order/Charge Code**
Project Title 2UP1-LOI JULY 2006	DTS - SAMS 4109	**Ice Chest No.** GRP03-004 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1JKT6		W	7-21-06	0211	1x20-mL P	Activity Scan	None
B1JKT6		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1) H9TM9	HCl to pH <2
B1JKT6		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DUHATEK L. D. WALL	R. D. Wall		JUL 21 2006 14:00	S. Welch		S. Welch	JUL 21 2006 14:00
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liquid	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wipe	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 7-21-06 14:00

Client: PGW SDG #: W04969 NA [ ] SAF #: I06-048 NA [

Work Order Number: J6G220141 Chain of Custody # I06-048-6,5,2

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA [ ] Yes ~~[ ]~~ No [ ]
2. Custody Seals dated and signed? NA [ ] Yes ~~[ ]~~ No [ ]
3. Chain of Custody record present? Yes ~~[ ]~~ No [ ]
4. Cooler temperature: _____ NA ~~[ ]~~ 5: Vermiculite/packing materials is NA ~~[ ]~~ Wet [ ] Dr
6. Number of samples in shipping container: 3
7. Sample holding times exceeded? NA ~~[ ]~~ Yes [ ] No [ ]
8. Samples have:
   _____ tape
   _____ custody seals
   _____ hazard labels
   ✓ appropriate samples labels
9. Samples are:
   ✓ in good condition
   _____ broken
   _____ leaking
   _____ have air bubbles
   (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 ~~[ ]~~ pH>2 ~~[ ]~~ adjusted pH [ ]
11. Sample Location, Sample Collector Listed? *
    *For documentation only. No corrective action needed. Yes ~~[ ]~~ No [ ]
12. Were any anomalies identified in sample receipt? Yes [ ] No ~~[ ]~~
13. Description of anomalies (include sample numbers): _____

Sample Custodian: S. Webb Date: 7-21-06 14:00

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 12/05, Rev. 6

8/3/2006 7:36:58 AM

Sample Preparation/Analysis

Balance Id:PB5001/22

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

BN I-129 Prp/SepRC5025
TB Gamma by LEPD
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 08/29/2006

Sep1 DT/Tm Tech:

Batch: 6207537 **WATER** **pCi/L** **PM, Quote: HC , 57671**

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 6207529 FPS5, 6207533 ARS6, 6207534 AZS7, 6207536 BCS8, 6207537 BNTB, 6207538 CLTL,

Prep Tech: ,HoganS

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 H9RQJ-1-AE J6G210334-2-SAMP 07/20/2006 10:27	AmtRec: 20ML,5XLP,2X4LP #Containers: 8	3917.00g,in	ITA5512 06/29/06	IFA	35.6	100	L2	1546	8/14/06	Scr: Alpha: -2.42E-05 uCi/Sa Beta: 8.76E-04 uCi/Sa
2 H9RQ0-1-AD J6G210334-4-SAMP 07/20/2006 11:22	AmtRec: 20ML,500MLP,LP,2X4LP #Containers: 5	3932.70g,in	ITA5513 06/29/06		35.2		L4 8/14/06	1632		Scr: Alpha: -3.35E-05 uCi/Sa Beta: 1.88E-04 uCi/Sa
3 H9RVF-1-AC J6G210343-1-SAMP 07/20/2006 09:59	AmtRec: 20ML,2X500ML,LP,2X4LP #Containers: 6	3901.00g,in	ITA5514 06/29/06		30.9		L5	1633		Scr: Alpha: -2.72E-03 uCi/Sa Beta: 3.64E-03 uCi/Sa
4 H9RVV-1-AC J6G210350-1-SAMP 07/20/2006 08:50	AmtRec: 20ML,2X500MLP,LP,2X4LP #Containers: 6	3888.00g,in	ITA5515 06/29/06		34.3		L2	1754		Scr: Alpha: -6.56E-04 uCi/Sa Beta: 1.73E-03 uCi/Sa
5 H9RV0-1-AC J6G210350-2-SAMP 07/20/2006 11:30	AmtRec: 20ML,2X500MLP,LP,2X4LP #Containers: 6	3904.20g,in	ITA5516 06/29/06		35.1		L4	1825		Scr: Alpha: 1.77E-03 uCi/Sa Beta: -8.61E-04 uCi/Sa
6 H9RV0-1-AF-X J6G210350-2-DUP 07/20/2006 11:30	AmtRec: 20ML,2X500MLP,LP,2X4LP #Containers: 6	3934.80g,in	ITA5517 06/29/06		35.7		L5	1826		Scr: Alpha: 1.77E-03 uCi/Sa Beta: -8.61E-04 uCi/Sa
7 H93G2-1-AA-B J6G260000-537-BLK 07/20/2006 11:30	AmtRec: #Containers: 1	4000.70g,in	ITA5518 06/29/06		35.5		L2	1938		Scr: Alpha: Beta:

8/3/2006 7:37:00 AM

Sample Preparation/Analysis

BN I-129 Prp/SepRC5025
TB Gamma by LEPD
5I CLIENT: HANFORD

Balance Id:PB5001/22

Pipet #: _____

AnalyDueDate: 08/29/2006

Sep1 DT/Tm Tech:

Batch: 6207537 **pCi/L**
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: HoganS

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 H93G2-1-AC-C J6G260000-537-LCS		4000.40g,in	ISD0672 06/16/06	IFA	37.3	100	L4	2041	8/14/06 RD	
07/20/2006 11:30	AmtRec:	#Containers: 1						Scr:	Alpha:	Beta:

Comments:

All Clients for Batch:
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, HC , 57671

H9RQJ1AE-SAMP Constituent List:
I-129 RDL:1.00E+00 pCi/L LCL: UCL: RPD:
H93G21AA-BLK:
I-129 RDL:1.00E+00 pCi/L LCL: UCL: RPD:
H93G21AC-LCS:
I-129 RDL:5 pCi/L LCL:70 UCL:130 RPD:20

H9RQJ1AE-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
H93G21AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
H93G21AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

8/16/2006 12:50:32 PM

ICOC Fraction Transfer/Status Report

ByDate: 8/16/2005, 8/21/2006, Batch: '6207537', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
6207537						
AC		**CalcC**	**HoganS**	8/3/2006 6:57:06 AM		
SC			wagarr	IsBatched	7/26/2006 4:08:34 PM	ICOC_RADCALC v4.8.24
SC			HoganS	InSep1	8/3/2006 6:57:06 AM	RICHRC5025 REV3
SC			HoganS	InPrep	8/3/2006 7:13:12 AM	richrc5025 rev3
SC			NortonJ	Prep1C	8/14/2006 1:59:17 PM	RICHRC5025 REV3
SC			DAWKINSO	InCnt1	8/14/2006 2:05:21 PM	RICH-RD-0007 REVISION 5
SC			DAWKINSO	CalcC	8/14/2006 9:16:50 PM	RICH-RD-0007 REVISION 5
AC			**HoganS**	8/3/2006 7:13:12 AM		
AC			**NortonJ**	8/14/2006 1:59:17 PM		
AC			**DAWKINSO**	8/14/2006 2:05:21 PM		
AC			**DAWKINSO**	8/14/2006 9:16:50 PM		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 5

ICOCFractions v4.8.18

8/8/2006 1:52:08 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

AW Gamma PrpRC5017
TA Gamma by HPGE
5I CLIENT: HANFORD

Balance Id:1120482733

Pipet #:

AnalyDueDate: 08/29/2006 WO4969

Sep1 DT/Tm Tech:

Batch: 6207539 **WATER** **pCi/L** **PM, Quote: HC , 57671**

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 6207533 ARS6, 6207534 AZS7, 6207536 BCS8, 6207539 AWTA, 6207540 CLTL,

Prep Tech: RutherfordJ JS 6/04

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 H9RR2-1-AE J6G210337-6-SAMP 07/20/2006 10:45		2498.50g,in AmtRec: 20ML,8XLP	#Containers: 9		100	100	G10	1604	8/9/06 MD	Scr: Alpha: 3.01E-03 uCi/Sa Beta: 6.11E-03 uCi/Sa 1.2E-01L
2 H9TM1-1-AE J6G220140-1-SAMP 07/21/2006 11:13		2500.80g,in AmtRec: 20ML,8XLP	#Containers: 9			100	G11	1604		Scr: Alpha: 2.84E-03 uCi/Sa Beta: 1.58E-03 uCi/Sa
3 H9TM2-1-AE J6G220140-2-SAMP 07/21/2006 09:54		1008.10g,in AmtRec: 20ML,8XLP	#Containers: 9			100	G6	1605		Scr: Alpha: 1.05E-02 uCi/Sa 1.4E-01L Beta: 1.44E-02 uCi/Sa 5.0E-02L
4 H9TM2-1-AG-X J6G220140-2-DUP 07/21/2006 09:54		998.50g,in AmtRec: 20ML,8XLP	#Containers: 9			100	G8	1606		Scr: Alpha: 1.05E-02 uCi/Sa 1.4E-01L Beta: 1.44E-02 uCi/Sa 5.0E-02L
5 H93G7-1-AA-B J6G260000-539-BLK 07/21/2006 11:13		2503.70g,in AmtRec:	#Containers: 1			100	G12	1606		Scr: Alpha: Beta:
6 H93G7-1-AC-C J6G260000-539-LCS 07/21/2006 11:13		2502.90g,in AmtRec:	QCAG1271 07/20/06,pd 03/07/05,r #Containers: 1			100	G13	1607		Scr: Alpha: Beta:

8/8/2006 1:52:10 PM

Sample Preparation/Analysis

AW Gamma PrpRC5017
TA Gamma by HPGE
5I CLIENT: HANFORD

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 08/29/2006

Sep1 DT/Tm Tech:

Batch: 6207539 **pCi/L**
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,RutherfordJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

Comments: H9RR2-SAMP ,"Aliquot for H9RR2 reduced to 120 ml. MD 8/8/06"
H9TM1-SAMP ""
H9TM2-SAMP "Comments: Aliquots reduced for H9TM2 due to initial screen activity. MD 8/8/06"

pH < 2.0 JHR 8/8/06

All Clients for Batch:
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, HC , 57671

H9RR21AE-SAMP Constituent List:

Co-60	RDL:2.50E+01	pCi/L	LCL:	UCL:	RPD:	Cs-134	RDL:1.50E+01	pCi/L	LCL:	UCL:	RPD:
Cs-137	RDL:1.50E+01	pCi/L	LCL:70	UCL:130	RPD:20	Cs-137DA	RDL:1.50E+01	pCi/L	LCL:70	UCL:130	RPD:20
Eu-152	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:	Eu-154	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:
Eu-155	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:	K-40	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:
Sb-125	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:						

H93G71AA-BLK:

Co-60	RDL:2.50E+01	pCi/L	LCL:	UCL:	RPD:	Cs-134	RDL:1.50E+01	pCi/L	LCL:	UCL:	RPD:
Cs-137	RDL:1.50E+01	pCi/L	LCL:	UCL:	RPD:	Cs-137DA	RDL:1.50E+01	pCi/L	LCL:	UCL:	RPD:
Eu-152	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:	Eu-154	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:
Eu-155	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:	K-40	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:
Sb-125	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:						

H93G71AC-LCS:

Cs-137	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20	Cs-137DA	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20
K-40	RDL:6	pCi/L	LCL:70	UCL:130	RPD:20	Ra-226	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20
RA-228	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20	RA-228DA	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20
U-238	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20						

H9RR21AE-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
H93G71AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
H93G71AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

8/15/2006 4:42:31 PM

ICOC Fraction Transfer/Status Report

ByDate: 8/15/2005, 8/20/2006, Batch: '6207539', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
6207539						
AC		**CalcC**	**RutherfordJ**	8/8/2006 12:39:06 PM		
SC			wagarr	IsBatched	7/26/2006 4:08:34 PM	ICOC_RADCALC v4.8.24
SC			RutherfordJ	InPrep	8/8/2006 12:39:06 PM	RICH-RC-5017 REVISION 5
SC			RutherfordJ	InPrep	8/8/2006 1:36:28 PM	RICH-RC-5017 REVISION 5
SC			RutherfordJ	Prep1C	8/8/2006 1:54:10 PM	RICH-RC-5017 REVISION 5
SC			ScottM	Prep2C	8/9/2006 2:15:49 PM	RICH-RC-5017 REVISION 4
SC			DAWKINSO	Cnt1C	8/9/2006 2:29:15 PM	RICH-RD-0007 REVISION 5
SC			DAWKINSO	CalcC	8/9/2006 4:45:20 PM	RICH-RD-0007 REVISION 5
AC			**RutherfordJ**	8/8/2006 1:36:28 PM		
AC			**RutherfordJ**	8/8/2006 1:54:10 PM		
AC			**ScottM**	8/9/2006 2:15:49 PM		
AC			**DAWKINSO**	8/9/2006 2:29:15 PM		
AC			**DAWKINSO**	8/9/2006 4:45:20 PM		

AC: Accepting Entry; SC: Status Change

8/8/2006 9:58:29 AM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

AZ Gross Alpha PrpRC5014
S7 Gross Alpha by GPC using Am-241 curve
5I CLIENT: HANFORD

Balance Id:1120482733
Pipet #: 229

AnalyDueDate: 08/29/2006 WO 4969

Sep1 DT/Tm Tech:

Batch: 6207534 **WATER** **pCi/L** **PM, Quote: HC , 57671**
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: RutherfordJ Scott

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 H9RQC-1-AA J6G210334-1-SAMP 07/20/2006 09:33		128.00g,in AmtRec: 20ML,LP #Containers: 2		1.5	33.0	1/200	NA Scr:	0957 Alpha: -1.15E-04 uCi/Sa	8/16/06 Beta: 4.33E-05 uCi/Sa	
2 H9RQC-1-AD-X J6G210334-1-DUP 07/20/2006 09:33		128.20g,in AmtRec: 20ML,LP #Containers: 2			33.1		ND Scr:	Alpha: -1.15E-04 uCi/Sa	Beta: 4.33E-05 uCi/Sa	
3 H9RQJ-1-AC J6G210334-2-SAMP 07/20/2006 10:27		146.80g,in AmtRec: 20ML,5XLP,2X4LP #Containers: 8			21.2 ~~21.5~~ 8/15/06		NC Scr:	Alpha: -2.42E-05 uCi/Sa	Beta: 8.76E-04 uCi/Sa	
4 H9RQT-1-AA J6G210334-3-SAMP 07/20/2006 08:50		74.00g,in AmtRec: 20ML,LP #Containers: 2			31.8		ND Scr:	Alpha: -1.19E-04 uCi/Sa	Beta: 1.15E-04 uCi/Sa	
5 H9RQ0-1-AA J6G210334-4-SAMP 07/20/2006 11:22		111.60g,in AmtRec: 20ML,500MLP,LP,2X4LP #Containers: 5			28.6		ND Scr:	Alpha: -3.35E-05 uCi/Sa	Beta: 1.88E-04 uCi/Sa	
6 H9RR2-1-AC J6G210337-6-SAMP 07/20/2006 10:45		127.70g,in AmtRec: 20ML,8XLP #Containers: 9			20.1		NA Scr:	1326 Alpha: 3.01E-03 uCi/Sa	8/16/06 Beta: 6.11E-03 uCi/Sa 1.2E-01L	
7 H9TM1-1-AC J6G220140-1-SAMP 07/21/2006 11:13		61.10g,in AmtRec: 20ML,8XLP #Containers: 9			38.2	1/200	ND Scr:	1835 Alpha: 2.84E-03 uCi/Sa	8/15/06 Beta: 1.58E-03 uCi/Sa	

8/8/2006 9:58:30 AM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

AZ Gross Alpha PrpRC5014
S7 Gross Alpha by GPC using Am-241 curve
5I CLIENT: HANFORD

Balance Id:1120482733
Pipet #:

AnalyDueDate: 08/29/2006

Sep1 DT/Tm Tech:

Batch: 6207534 WATER pCi/L PM, Quote: HC , 57671
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: RutherfordJ Scott

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 H9TM2-1-AC J6G220140-2-SAMP 07/21/2006 09:54	100 ml/s (LMA 7/28/06) MD 8/8/06	37.70g,in		115	490	200	10E	1835	8/15/06 OR	
		AmtRec: 20ML,8XLP	#Containers: 9					Scr: Alpha: 1.05E-02 uCi/Sa 1.4E-01L	Beta: 1.44E-02 uCi/Sa 5.0E-02L	
9 H93GQ-1-AA-B J6G260000-534-BLK 07/20/2006 09:33		200.00g,in			0.2		10B	1326	8/16/06	
		AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:
10 H93GQ-1-AC-C J6G260000-534-LCS 07/20/2006 09:33		199.40g,in	ASD3955 08/03/06,pd 02/09/06,r		0.1		10C			
		AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:

Comments:
H9RQC-SAMP "Comments: Aliquots reduced for H9RQC due to weight screen activity. MD 8/8/06"
H9RQJ-SAMP "Comments: Aliquots reduced for H9RQJ due to weight screen activity. MD 8/8/06"
H9RQT-SAMP "Comments: Aliquots reduced for H9RQT due to weight screen activity. MD 8/8/06"
H9RQ0-SAMP "Comments: Aliquots reduced for H9RQ0 due to weight screen activity. MD 8/8/06"
H9RR2-SAMP "Comments: Aliquots reduced for H9RQC alpha due to weight screen activity. MD 8/8/06","Aliquot for H9RR2 reduced to 120 ml. MD 8/8/06"
H9TM1-SAMP "Comments: Aliquots reduced for H9TM1 due to weight screen activity. MD 8/8/06"
H9TM2-SAMP "Comments: Aliquots reduced for H9TM2 due to weight screen activity. MD 8/8/06"
H93GQ-BLK Comments

All Clients fc pH <2.0 MD 8/8/06
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, HC , 57671

H9RR2AC Counted 200 min to fill detector. 8/16/06

H9RQC1AA-SAMP Constituent List:

ALPHA	RDL:3	pCi/L	LCL:	UCL:	RPD:
H93GQ1AA-BLK:					
ALPHA	RDL:3	pCi/L	LCL:	UCL:	RPD:
H93GQ1AC-LCS:					
Am-241	RDL:	pCi/L	LCL:70	UCL:130	RPD:20

Sample Preparation/Analysis

AZ Gross Alpha PrpRC5014
S7 Gross Alpha by GPC using Am-241 curve
5I CLIENT: HANFORD

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 08/29/2006

Sep1 DT/Tm Tech:

Batch: 6207534 pCi/L

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: RutherfordJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

```
H9RQC1AA-SAMP Calc Info:
    Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
H93GQ1AA-BLK:
    Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
H93GQ1AC-LCS:
    Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```

Approved By _____ Date: _____

8/16/2006 4:36:59 PM

ICOC Fraction Transfer/Status Report

ByDate: 8/16/2005, 8/21/2006, Batch: '6207534', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
6207534						
AC		**CalcC**	**RutherfordJ**	8/8/2006 9:20:47 AM		
SC			wagarr	IsBatched	7/26/2006 4:08:34 PM	ICOC_RADCALC v4.8.24
SC			RutherfordJ	InPrep	8/8/2006 9:20:47 AM	RICH-RC-5014 REVISION 6
SC			RutherfordJ	Prep1C	8/8/2006 10:26:11 AM	RICH-RC-5014 REVISION 6
SC			ScottM	InPrep2	8/11/2006 9:46:53 AM	RICH-RC-5014 REVISION 6
SC			ScottM	Prep2C	8/15/2006 7:49:42 AM	RICH-RC-5014 REVISION 6
SC			BlackCL	InCnt1	8/15/2006 7:54:01 AM	RICH-RD-0003 REVISION 4
SC			StringerR	CalcC	8/16/2006 1:46:00 PM	RICH-RD-0003 REVISION 4
AC			**RutherfordJ**	8/8/2006 10:26:11		
AC			**ScottM**	8/11/2006 9:46:53		
AC			**ScottM**	8/14/2006 1:43:17 PM		
AC			**ScottM**	8/15/2006 7:49:42		
AC			**BlackCL**	8/15/2006 7:54:01		
AC			**StringerR**	8/16/2006 1:46:00 PM		

AC: Accepting Entry; SC: Status Change

8/8/2006 9:58:32 AM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

BC Gross Beta PrpRC5014
S8 Gross Beta by GPC using Sr/Y-90 curve
5I CLIENT: HANFORD

Balance Id:1120482733
Pipet #: 229

AnalyDueDate: 08/29/2006 WO 4969

Sep1 DT/Tm Tech:

Batch: 6207536 WATER pCi/L **PM, Quote: HC , 57671**
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: RutherfordJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 H9RQC-1-AC J6G210334-1-SAMP 07/20/2006 09:33		200.50g,in AmtRec: 20ML,LP	#Containers: 2	1.5	84.8	100	32C	1155	8/15/06 S Scr: Alpha: -1.15E-04 uCi/Sa	Beta: 4.33E-05 uCi/Sa
2 H9RQJ-1-AD J6G210334-2-SAMP 07/20/2006 10:27		200.90g,in AmtRec: 20ML,5XLP,2X4LP	#Containers: 8		61.5		32D		Scr: Alpha: -2.42E-05 uCi/Sa	Beta: 8.76E-04 uCi/Sa
3 H9RQT-1-AC J6G210334-3-SAMP 07/20/2006 08:50		107.90g,in AmtRec: 20ML,LP	#Containers: 2		42.8		31A	1343	8/15/06 Scr: Alpha: -1.19E-04 uCi/Sa	Beta: 1.15E-04 uCi/Sa
4 H9RQT-1-AD-X J6G210334-3-DUP 07/20/2006 08:50		107.10g,in AmtRec: 20ML,LP	#Containers: 2		52.9		31B		Scr: Alpha: -1.19E-04 uCi/Sa	Beta: 1.15E-04 uCi/Sa
5 H9RQ0-1-AC J6G210334-4-SAMP 07/20/2006 11:22		185.30g,in AmtRec: 20ML,500MLP,LP,2X4LP	#Containers: 5		98.3		31C		Scr: Alpha: -3.35E-05 uCi/Sa	Beta: 1.88E-04 uCi/Sa
6 H9RRF-1-AA (64 ml/s) J6G210337-1-SAMP 07/20/2006 09:40		65.90g,in AmtRec: 20ML,LP	#Containers: 2		16.0	200	26C	1593	Scr: Alpha: 6.55E-04 uCi/Sa 2.7E-01L	Beta: 1.41E-03 uCi/Sa 6.4E-02L
7 H9RRN-1-AA J6G210337-2-SAMP 07/20/2006 10:15		200.10g,in AmtRec: 20ML,LP	#Containers: 2		43.5		31D	1343	Scr: Alpha: -1.57E-04 uCi/Sa	Beta: 3.84E-04 uCi/Sa

8/8/2006 9:58:32 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

BC Gross Beta PrpRC5014
S8 Gross Beta by GPC using Sr/Y-90 curve
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 08/29/2006

Sep1 DT/Tm Tech:

Batch: 6207536 WATER pCi/L PM, Quote: HC , 57671

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,RutherfordJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 H9RRR-1-AA J6G210337-3-SAMP 07/20/2006 10:30		201.30g,in AmtRec: 20ML,LP	#Containers: 2	115	32A	100	32A	1343	8/15/06	Scr: Alpha: 4.89E-04 uCi/Sa Beta: 4.29E-04 uCi/Sa
9 H9RRV-1-AA J6G210337-4-SAMP 07/20/2006 09:40		198.70g,in AmtRec: 20ML,LP	#Containers: 2		43.8		32B			Scr: Alpha: 2.38E-04 uCi/Sa Beta: 3.64E-04 uCi/Sa
10 H9RR0-1-AA J6G210337-5-SAMP 07/20/2006 10:30		202.00g,in AmtRec: 20ML,LP	#Containers: 2		42.9		32C			Scr: Alpha: 2.02E-04 uCi/Sa Beta: 2.44E-04 uCi/Sa
11 H9RR2-1-AD (120 ml's) J6G210337-6-SAMP 07/20/2006 10:45		122.30g,in AmtRec: 20ML,8XLP	#Containers: 9		60.7		32D			Scr: Alpha: 3.01E-03 uCi/Sa Beta: 6.11E-03 uCi/Sa 1.2E-01L
12 H9RR9-1-AA J6G210337-7-SAMP 07/20/2006 09:55		200.40g,in AmtRec: 20ML,LP	#Containers: 2		35.8		31A	1545	8/15/06	Scr: Alpha: -6.23E-05 uCi/Sa Beta: 1.85E-04 uCi/Sa
13 H9TMV-1-AC J6G220138-1-SAMP 07/21/2006 08:57		201.20g,in AmtRec: 20ML,5XLP	#Containers: 6		67.0		31B			Scr: Alpha: 7.86E-07 uCi/Sa Beta: 8.44E-06 uCi/Sa
14 H9TM1-1-AD J6G220140-1-SAMP 07/21/2006 11:13		140.30g,in AmtRec: 20ML,8XLP	#Containers: 9		110.2		31C			Scr: Alpha: 2.84E-03 uCi/Sa Beta: 1.58E-03 uCi/Sa

8/8/2006 9:58:33 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

BC Gross Beta PrpRC5014
S8 Gross Beta by GPC using Sr/Y-90 curve
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 08/29/2006

Sep1 DT/Tm Tech:

Batch: 6207536 **WATER** **pCi/L** **PM, Quote: HC , 57671**

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: RutherfordJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15H9TM2-1-AD J6G220140-2-SAMP 07/21/2006 09:54	50mls	52.10g,in AmtRec: 20ML,8XLP	#Containers: 9	1.5	88.5	100	3~~2~~D 8/15/0600	1545	8/15/0600	Scr: Alpha: 1.05E-02 uCi/Sa 1.4E-01L Beta: 1.44E-02 uCi/Sa 5.0E-02L
16H93GX-1-AA-B J6G260000-536-BLK 07/20/2006 08:50		200.70g,in AmtRec:	#Containers: 1		0.3	200	26D	1513	8/18/06	Scr: Alpha: Beta:
17H93GX-1-AC-C J6G260000-536-LCS 07/20/2006 08:50		200.10g,in AmtRec:	BESB2882 07/20/06,pd 09/21/04,r #Containers: 1		0.7		27A			Scr: Alpha: Beta:

Comments:
H9RQC-SAMP "Comments: Aliquots reduced for H9RQC due to weight screen activity. MD 8/8/06"
H9RQJ-SAMP "Comments: Aliquots reduced for H9RQJ due to weight screen activity. MD 8/8/06"
H9RQT-SAMP "Comments: Aliquots reduced for H9RQT due to weight screen activity. MD 8/8/06"
H9RQ0-SAMP "Comments: Aliquots reduced for H9RQ0 due to weight screen activity. MD 8/8/06"
H9RR2-SAMP "Comments: Aliquots reduced for H9RQC alpha due to weight screen activity. MD 8/8/06","Aliquot for H9RR2 reduced to 120 ml. MD 8/8/06"
H9TM1-SAMP "Comments: Aliquots reduced for H9TM1 due to weight screen activity. MD 8/8/06"
H9TM2-SAMP "Comments: Aliquots reduced for H9TM2 due to weight screen activity. MD 8/8/06"
H93GQ-BLK Comments
H9RRF-SAMP "Comments: Aliquots reduced for H9RRF to 64 ml following instructions on paperwork. MD 8/8/06"

All Clients fc
384868, Pa

pH<2.0 mD 8/8/06

H9RQC1AC-SAMP Constituent List:
BETA RDL:4 pCi/L LCL: UCL: RPD:
H93GX1AA-BLK:
BETA RDL:4 pCi/L LCL: UCL: RPD:
H93GX1AC-LCS:

Sample Preparation/Analysis

BC Gross Beta PrpRC5014
S8 Gross Beta by GPC using Sr/Y-90 curve
5I CLIENT: HANFORD

Balance Id:1120482733
Pipet #: _____
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech: ,RutherfordJ

AnalyDueDate: 08/29/2006

Batch: 6207536 pCi/L
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

Sr-90 RDL: pCi/L LCL:70 UCL:130 RPD:20

H9RQC1AC-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
H93GX1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
H93GX1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

8/16/2006 4:35:19 PM

ICOC Fraction Transfer/Status Report

ByDate: 8/16/2005, 8/21/2006, Batch: '6207536', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
6207536						
AC		**CalcC**	**RutherfordJ**	8/8/2006 9:20:32 AM		
SC			wagarr	IsBatched	7/26/2006 4:08:34 PM	ICOC_RADCALC v4.8.24
SC			RutherfordJ	InPrep	8/8/2006 9:20:32 AM	RICH-RC-5014 REVISION 6
SC			RutherfordJ	Prep1C	8/8/2006 10:26:16 AM	RICH-RC-5014 REVISION 6
SC			ScottM	InPrep2	8/11/2006 9:46:58 AM	RICH-RC-5014 REVISION 6
SC			ScottM	Prep2C	8/15/2006 7:49:08 AM	RICH-RC-5014 REVISION 6
SC			BlackCL	InCnt1	8/15/2006 7:54:23 AM	RICH-RD-0003 REVISION 4
SC			DAWKINSO	CalcC	8/15/2006 4:47:40 PM	RICH-RD-0003 REVISION 4
AC			**RutherfordJ**	8/8/2006 10:26:16		
AC			**RutherfordJ**	8/8/2006 10:26:24		
AC			**ScottM**	8/11/2006 9:46:58		
AC			**ScottM**	8/14/2006 1:42:53 PM		
AC			**ScottM**	8/15/2006 7:49:08		
AC			**BlackCL**	8/15/2006 7:54:23		
AC			**DAWKINSO**	8/15/2006 4:47:40 PM		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 8

ICOCFractions v4.8.18

8/10/2006 7:14:18 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

CL Sr-90 Prp/SepRC5006(5071)
TL Sr-85 by NaI and Sr-90 by GPC 7 day ingrowth
5I CLIENT: HANFORD

Pipet #:

AnalyDueDate: 08/29/2006 mo 4969

Sep1 DT/Tm Tech: DM 8-22-06 22 Aug 06 1030

Sep2 DT/Tm Tech: 29 Aug 06 0950 DRM

Prep Tech: RutherfordJ

Batch: 6207538 **WATER** **pCi/L** **PM, Quote: HC , 57671**

SEQ Batch, Test: None All Tests: 6207529 FPS5, 6207533 ARS6, 6207534 AZS7, 6207536 BCS8, 6207537 BNTB, 6207538 CLTL,

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 H9RQJ-1-AF J6G210334-2-SAMP		1000.20g,in	SRTB13916 08/03/06,pd 06/21/06,r YTA16094 Ex:7/23/2007	1.887 2.0159 0.9361	1.5"	25.1	100	3" 5A 5A	1918 0831 0449	8/22/06 DR 8/30/06 8/31/06	
07/20/2006 10:27		AmtRec: 20ML,5XLP,2X4LP	#Containers: 8					Scr:	Alpha: -2.42E-05 uCi/Sa	Beta: 8.76E-04 uCi/Sa	
2 H9RQJ-1-AG-X J6G210334-2-DUP		1000.00g,in	SRTB13917 08/03/06,pd 06/21/06,r YTA16095 Ex:7/23/2007	2.034 2.0260 1.0039		25.1	100	3" 5B 5B	1957 0831 0449	8/22/06 DR 8/30/06 8/31/06	
07/20/2006 10:27		AmtRec: 20ML,5XLP,2X4LP	#Containers: 8					Scr:	Alpha: -2.42E-05 uCi/Sa	Beta: 8.76E-04 uCi/Sa	
3 H93G5-1-AA-B J6G260000-538-BLK		1000.90g,in	SRTB13918 08/03/06,pd 06/21/06,r YTA16096 Ex:7/23/2007	1.928 2.0259 0.9517		25.2	100	3" 5C 5C	2033 0831 0449	8/22/06 DR 8/30/06 8/31/06	
07/20/2006 10:27		AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:	
4 H93G5-1-AC-C J6G260000-538-LCS		1001.30g,in	SRSG1249 07/27/06,pd 06/21/06,r YTA16097 Ex:7/23/2007	1.993 1.9993 0.8968		24.9	100	3" 5D 5D	2105 0831 0449	8/22/06 DR 8/30/06 8/31/06	
07/20/2006 10:27		AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:	

8/10/2006 7:14:20 AM

Sample Preparation/Analysis

CL Sr-90 Prp/SepRC5006(5071)
TL Sr-85 by NaI and Sr-90 by GPC 7 day ingrowth
5I CLIENT: HANFORD

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 08/29/2006

Sep1 DT/Tm Tech:

Batch: 6207538 pCi/L

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,RutherfordJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

Comments: pH <2.0 mg 8/10/06

All Clients for Batch:
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, HC , 57671

H9RQJ1AF-SAMP Constituent List:

Sr-85	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	Sr-90	RDL:2	pCi/L	LCL:70	UCL:130	RPD:20

H93G51AA-BLK:

Sr-85	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	Sr-90	RDL:2	pCi/L	LCL:	UCL:	RPD:

H93G51AC-LCS:

Sr-85	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	Sr-90	RDL:2	pCi/L	LCL:70	UCL:130	RPD:20

H9RQJ1AF-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

H93G51AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

H93G51AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

8/31/2006 9:43:16 AM

ICOC Fraction Transfer/Status Report

ByDate: 8/31/2005, 9/5/2006, Batch: '6207538', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
6207538						
AC		**CalcC**	**RutherfordJ**	8/10/2006 7:02:30		
SC			wagarr	IsBatched	7/26/2006 4:08:34 PM	ICOC_RADCALC v4.8.24
SC			RutherfordJ	InPrep	8/10/2006 7:02:30 AM	RICH-RC-5016 REVISION 6
SC			BlackCL	InCnt1	8/22/2006 1:27:45 PM	RICH-RD-0007 REVISION 5
SC			DAWKINSO	Cnt1C	8/22/2006 9:01:35 PM	RICH-RD-0007 REVISION 5
SC			ManisD	Sep2C	8/29/2006 3:39:39 PM	RICH-RC-5071 REVISION 4
SC			DAWKINSO	InCnt2	8/29/2006 7:30:15 PM	RICH-RD-0003 REVISION 4
SC			DAWKINSO	InCnt1	8/29/2006 8:09:02 PM	RICH-RD-0003 REVISION 4
SC			BlackCL	CalcC	8/31/2006 6:21:48 AM	RICH-RD-0003 REVISION 4
AC			**BlackCL**	8/22/2006 1:27:45 PM		
AC			**DAWKINSO**	8/22/2006 9:01:35 PM		revision 5
AC			**ManisD**	8/29/2006 3:39:39 PM		
AC			**DAWKINSO**	8/29/2006 7:30:15 PM		
AC			**DAWKINSO**	8/29/2006 8:09:02 PM		
AC			**BlackCL**	8/31/2006 6:21:48		

AC: Accepting Entry; SC: Status Change

8/10/2006 7:33:48 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

CL Sr-90 Prp/SepRC5006(5071)
TL Sr-85 by NaI and Sr-90 by GPC 7 day ingrowth
5I CLIENT: HANGFORD

Pipet #: 8-22-06 DRM

AnalyDueDate: 08/29/2006 WO 4969

Sep1 DT/Tm Tech: 22 Aug 06 1030 DRM

Batch: 6207540 WATER pCi/L PM, Quote: HC , 57671

Sep2 DT/Tm Tech: 29 Aug 06 0950 DRM

SEQ Batch, Test: None

Prep Tech: RutherfordJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 H9RR2-1-AF J6G210337-6-SAMP		1000.20g,in	SRTB13919 08/03/06,pd 06/21/06,r YTA16081 Ex:7/23/2007	1.972 2.0276 0.9726	1"	23.0	100	3" 65 7A (60) 7A	1400 0846 0831 0904	8/22/06 8/30/06 8/31/06	
07/20/2006 10:45		AmtRec: 20ML,8XLP	#Containers: 9					Scr:	Alpha: 3.01E-03 uCi/Sa	Beta: 6.11E-03 uCi/Sa	1.2E-01L
2 H9TMV-1-AD J6G220138-1-SAMP		1000.60g,in	SRTB13920 08/03/06,pd 06/21/06,r YTA16082 Ex:7/23/2007	1.960 2.0326 0.9643		23.5		3" 30 25 (30) 7A/C	1432 1023 0831 0937	8/22/06 8/30/06 8/31/06	
07/21/2006 08:57		AmtRec: 20ML,5XLP	#Containers: 6					Scr:	Alpha: 7.86E-07 uCi/Sa	Beta: 8.44E-06 uCi/Sa	
3 H9TMV-1-AE-X J6G220138-1-DUP		999.90g,in	SRTB13921 08/03/06,pd 06/21/06,r YTA16083 Ex:7/23/2007	2.036 2.0192 1.0083		24.4		3" 30 7C (30) 7B/D	1506 1023 0831 0937	8/22/06 8/30/06 8/31/06	
07/21/2006 08:57		AmtRec: 20ML,5XLP	#Containers: 6					Scr:	Alpha: 7.86E-07 uCi/Sa	Beta: 8.44E-06 uCi/Sa	
4 H9TM1-1-AF J6G220140-1-SAMP		999.90g,in	SRTB13922 08/03/06,pd 06/21/06,r YTA16084 Ex:7/23/2007	2.013 2.0242 0.9945		23.9		3" 1A 3A	1540 0831 0547	8/22/06 8/30/06 8/31/06	
07/21/2006 11:13		AmtRec: 20ML,8XLP	#Containers: 9					Scr:	Alpha: 2.84E-03 uCi/Sa	Beta: 1.58E-03 uCi/Sa	

8/10/2006 7:36:03 AM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

CL Sr-90 Prp/SepRC5006(5071)
TL Sr-85 by NaI and Sr-90 by GPC 7 day ingrowth
5I CLIENT: HANFORD

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 08/29/2006

Sep1 DT/Tm Tech:

Batch: 6207540 WATER pCi/L PM, Quote: HC , 57671

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: RutherfordJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
5 H9TM2-1-AF J6G220140-2-SAMP	460 m/s	461.00g,in	SRTB13923 08/03/06,pd 06/21/06,r	1.742 2.0292 0.8733	1"	24.6	100	9" 35 1B (3a) 1A	1622 8/22/06 0600 0916 0837 0437	8/22/06 0600 8/3/06 8/3/06	
YTA16085 Ex:7/23/2007											
07/21/2006 09:54		AmtRec: 20ML,8XLP		#Containers: 9				Scr: Alpha: 1.05E-02 uCi/Sa 1.4E-01L Beta: 1.44E-02 uCi/Sa 5.0E-02L			
6 H93G8-1-AA-B J6G260000-540-BLK		999.50g,in	SRTB13924 08/03/06,pd 06/21/06,r	1.869 2.0258 0.9226		24.4		3" 1C 2C	1627 0837 0547	8/22/06 0600 8/3/06 8/3/06	
YTA16086 Ex:7/23/2007											
07/21/2006 08:57		AmtRec:		#Containers: 1				Scr:	Alpha:		Beta:
7 H93G8-1-AC-C J6G260000-540-LCS		1000.10g,in	SRSG1250 07/27/06,pd 06/21/06,r	1.6086 1.9945 0.8441		23.4		9" 1D 2D	1701 0837 0547	8/22/06 0600 8/3/06 8/3/06	
YTA16087 Ex:7/23/2007											
07/21/2006 08:57		AmtRec:		#Containers: 1				Scr:	Alpha:		Beta:

Comments: H9TM1-SAMP ""
H9TM2-SAMP "Comments: Aliquots reduced for H9TM2 due to initial screen activity. MD 8/10/06"

pH <2.0 mo 8/10/06

All Clients for Batch:
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, HC , 57671

Sample Preparation/Analysis

CL Sr-90 Prp/SepRC5006(5071)
TL Sr-85 by NaI and Sr-90 by GPC 7 day ingrowth
5I CLIENT: HANFORD

Balance Id:1120482733
Pipet #: _____
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech: ,RutherfordJ

AnalyDueDate: 08/29/2006

Batch: 6207540 pCi/L
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

```
H9RR21AF-SAMP Constituent List:
  Sr-85      RDL:          pCi/L    LCL:20    UCL:105    RPD:20      Sr-90      RDL:2        pCi/L    LCL:70    UCL:130    RPD:20

H93G81AA-BLK:
  Sr-85      RDL:          pCi/L    LCL:20    UCL:105    RPD:20      Sr-90      RDL:2        pCi/L    LCL:      UCL:       RPD:

H93G81AC-LCS:
  Sr-85      RDL:          pCi/L    LCL:20    UCL:105    RPD:20      Sr-90      RDL:2        pCi/L    LCL:70    UCL:130    RPD:20

H9RR21AF-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
H93G81AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
H93G81AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```

Approved By _____ Date: _____

8/31/2006 9:43:46 AM

ICOC Fraction Transfer/Status Report

ByDate: 8/31/2005, 9/5/2006, Batch: '6207540', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
6207540						
AC		**CalcC**	**RutherfordJ**	8/10/2006 7:02:39		
SC			wagarr	IsBatched	7/26/2006 4:08:34 PM	ICOC_RADCALC v4.8.24
SC			RutherfordJ	InPrep	8/10/2006 7:02:39 AM	RICH-RC-5016 REVISION 6
SC			RutherfordJ	Prep1C	8/10/2006 7:34:39 AM	RICH-RC-5016 REVISION 6
SC			BlackCL	InCnt1	8/22/2006 1:27:55 PM	RICH-RD-0007 REVISION 5
SC			DAWKINSO	Cnt1C	8/22/2006 9:00:46 PM	RICH-RD-0007 REVISION 5
SC			ManisD	Sep2C	8/29/2006 3:39:27 PM	RICH-RC-5071 REVISION 4
SC			DAWKINSO	InCnt2	8/29/2006 7:30:09 PM	RICH-RD-0003 REVISION 4
SC			DAWKINSO	InCnt1	8/29/2006 8:08:49 PM	RICH-RD-0003 REVISION 4
SC			BlackCL	CalcC	8/31/2006 6:27:25 AM	RICH-RD-0003 REVISION 4
AC			**RutherfordJ**	8/10/2006 7:34:39		
AC			**BlackCL**	8/22/2006 1:27:55 PM		
AC			**DAWKINSO**	8/22/2006 9:00:46 PM		
AC			**ManisD**	8/29/2006 3:39:27 PM		
AC			**DAWKINSO**	8/29/2006 7:30:09 PM		
AC			**DAWKINSO**	8/29/2006 8:08:49 PM		
AC			**BlackCL**	8/31/2006 6:27:25		

AC: Accepting Entry; SC: Status Change

8/3/2006 9:53:10 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

FP Tc-99 Prp/SepRC5065
S5 Technetium-99 by Liquid Scint

Pipet #: _____

AnalyDueDate: 08/29/2006

5I CLIENT: HANFORD

Sep1 DT/Tm Tech:

Batch: 6207529 WATER pCi/L PM, Quote: HC , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 6207529 FPS5, 6207533 ARS6, 6207534 AZS7, 6207536 BCS8, 6207537 BNTB, 6207538 CLTL,

Prep Tech: ,HoganS

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 H9RQ0-1-AE J6G210334-4-SAMP 07/20/2006 11:22			125.00g,in	125.00g						
AmtRec: 20ML,500MLP,LP,2X4LP #Containers: 5								Scr:	Alpha: -3.35E-05 uCi/Sa	Beta: 1.88E-04 uCi/Sa
2 H9RQ0-1-AF-X J6G210334-4-DUP 07/20/2006 11:22			125.00g,in	125.00g						
AmtRec: 20ML,500MLP,LP,2X4LP #Containers: 5								Scr:	Alpha: -3.35E-05 uCi/Sa	Beta: 1.88E-04 uCi/Sa
3 H9RVF-1-AD J6G210343-1-SAMP 07/20/2006 09:59			125.00g,in	125.00g						
AmtRec: 20ML,2X500ML,LP,2X4LP #Containers: 6								Scr:	Alpha: -2.72E-03 uCi/Sa	Beta: 3.64E-03 uCi/Sa
4 H9RVF-1-AF-S J6G210343-1-MS 07/20/2006 09:59			125.00g,in	125.00g	TCSG1667 07/14/06,pd 01/10/06,r					
AmtRec: 20ML,2X500ML,LP,2X4LP #Containers: 6								Scr:	Alpha: -2.72E-03 uCi/Sa	Beta: 3.64E-03 uCi/Sa
5 H9RVV-1-AD J6G210350-1-SAMP 07/20/2006 08:50			125.00g,in	125.00g						
AmtRec: 20ML,2X500MLP,LP,2X4LP #Containers: 6								Scr:	Alpha: -6.56E-04 uCi/Sa	Beta: 1.73E-03 uCi/Sa
6 H9RV0-1-AD J6G210350-2-SAMP 07/20/2006 11:30			125.00g,in	125.00g						
AmtRec: 20ML,2X500MLP,LP,2X4LP #Containers: 6								Scr:	Alpha: 1.77E-03 uCi/Sa	Beta: -8.61E-04 uCi/Sa
7 H9TM7-1-AA J6G220141-1-SAMP 07/21/2006 10:29			125.00g,in	125.00g						
AmtRec: 20ML,2X500MLP #Containers: 3								Scr:	Alpha: -1.94E-04 uCi/Sa	Beta: 2.21E-04 uCi/Sa

8/3/2006 9:53:12 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

FP Tc-99 Prp/SepRC5065
S5 Technetium-99 by Liquid Scint

Pipet #: _____

AnalyDueDate: 08/29/2006

5I CLIENT: HANFORD

Sep1 DT/Tm Tech:

Batch: 6207529 WATER pCi/L

PM, Quote: HC , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,HoganS

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 H9TM8-1-AA J6G220141-2-SAMP 07/21/2006 10:29			125.10g,in	125.10g						
	AmtRec: 20ML,2X500MLP		#Containers: 3				Scr:	Alpha: -1.07E-04 uCi/Sa		Beta: 3.15E-05 uCi/Sa
9 H9TM9-1-AA J6G220141-3-SAMP 07/21/2006 12:11			125.00g,in	125.00g						
	AmtRec: 20ML,2X500MLP		#Containers: 3				Scr:	Alpha: -1.42E-04 uCi/Sa		Beta: 2.80E-04 uCi/Sa
10 H93GC-1-AA-B J6G260000-529-BLK 07/20/2006 11:22			125.10g,in	125.10g						
	AmtRec:		#Containers: 1				Scr:	Alpha:		Beta:
11 H93GC-1-AC-C J6G260000-529-LCS 07/20/2006 11:22			125.00g,in	125.00g	TCSE1988 07/27/06,pd 01/10/06,r					
	AmtRec:		#Containers: 1				Scr:	Alpha:		Beta:
12 H93GC-1-AD-BN J6G260000-529-IBLK 07/20/2006 11:22										
	AmtRec:		#Containers: 1				Scr:	Alpha:		Beta:

Comments: H9RV0-1-AD: Sample turned Teva Disk a light grey ~~clr~~ EJH even though sample appeared to be clear of any possible sediment.

All Clients for Batch:
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, HC , 57671

H9RQ01AE-SAMP Constituent List:
Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20

Sample Preparation/Analysis

FP Tc-99 Prp/SepRC5065
S5 Technetium-99 by Liquid Scint
5I CLIENT: HANFORD

AnalyDueDate: 08/29/2006

Batch: 6207529 **pCi/L**
SEQ Batch, Test: None

Balance Id:
Pipet #: _____
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech:

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

```
H9RVF1AF-MS:

H93GC1AA-BLK:
  Tc-99        RDL:15          pCi/L     LCL:        UCL:        RPD:
H93GC1AC-LCS:
  Tc-99        RDL:15          pCi/L     LCL:70      UCL:130     RPD:20
H93GC1AD-IBLK:
  Tc-99        RDL:15          pCi/L     LCL:        UCL:        RPD:
H9RQ01AE-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
H9RVF1AF-MS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
H93GC1AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
H93GC1AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
H93GC1AD-IBLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```

Approved By _____ Date: _____

8/7/2006 2:05:08 PM

ICOC Fraction Transfer/Status Report

ByDate: 8/7/2005, 8/12/2006, Batch: '6207529', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
6207529						
AC		**CalcC**	**HoganS**	8/3/2006 9:14:57 AM		
SC			wagarr	IsBatched	7/26/2006 4:08:34 PM	ICOC_RADCALC v4.8.24
SC			HoganS	InPrep	8/3/2006 9:14:57 AM	RICH-RC-5016 REVISION 6
SC			HoganS	Prep1C	8/3/2006 9:53:42 AM	RICH-RC-5016 REVISION 6
SC			AndersonE	InPrep	8/4/2006 11:22:55 AM	RICH-RC-5065 REV5
SC			StringerR	InCnt1	8/4/2006 11:36:12 AM	RICH-RD-0001 REVISION 3
SC			StringerR	CalcC	8/5/2006 11:48:58 AM	RICH-RD-0001 REVISION 3
AC			**HoganS**	8/3/2006 9:53:42 AM		
AC			**AndersonE**	8/4/2006 11:22:55		
AC			**StringerR**	8/4/2006 11:36:12		
AC			**StringerR**	8/5/2006 11:48:58		

AC: Accepting Entry; SC: Status Change

7/26/2006 4:06:35 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

AR H-3 Prp/SepRC5007
S6 Tritium by Liquid Scint
5I CLIENT: HANFORD

AnalyDueDate: 08/29/2006 W049969

Batch: 6207533 **WATER** **pCi/L** **PM, Quote: HC , 57671**
SEQ Batch, Test: None

Balance Id: 12445
Pipet #:
Sep1 DT/Tm Tech: 7-31-06 am
Sep2 DT/Tm Tech:
Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 H9RQJ-1-AA J6G210334-2-SAMP 07/20/2006 10:27	AmtRec: 20ML,5XLP,2X4LP	#Containers: 8				Scr:	Alpha: -2.42E-05 uCi/Sa	Beta: 8.76E-04 uCi/Sa
2 H9RR2-1-AA J6G210337-6-SAMP 07/20/2006 10:45	AmtRec: 20ML,8XLP	#Containers: 9				Scr:	Alpha: 3.01E-03 uCi/Sa	Beta: 6.11E-03 uCi/Sa 1.2E-01L
3 H9RR2-1-AG-X J6G210337-6-DUP 07/20/2006 10:45	AmtRec: 20ML,8XLP	#Containers: 9				Scr:	Alpha: 3.01E-03 uCi/Sa	Beta: 6.11E-03 uCi/Sa 1.2E-01L
4 H9RVF-1-AA J6G210343-1-SAMP 07/20/2006 09:59	AmtRec: 20ML,2X500ML,LP,2X4LP	#Containers: 6				Scr:	Alpha: -2.72E-03 uCi/Sa	Beta: 3.64E-03 uCi/Sa
5 H9RVV-1-AA J6G210350-1-SAMP 07/20/2006 08:50	AmtRec: 20ML,2X500MLP,LP,2X4LP	#Containers: 6				Scr:	Alpha: -6.56E-04 uCi/Sa	Beta: 1.73E-03 uCi/Sa
6 H9RV0-1-AA J6G210350-2-SAMP 07/20/2006 11:30	AmtRec: 20ML,2X500MLP,LP,2X4LP	#Containers: 6				Scr:	Alpha: 1.77E-03 uCi/Sa	Beta: -8.61E-04 uCi/Sa
7 H9TMV-1-AA J6G220138-1-SAMP 07/21/2006 08:57	AmtRec: 20ML,5XLP	#Containers: 6				Scr:	Alpha: 7.86E-07 uCi/Sa	Beta: 8.44E-06 uCi/Sa

7/26/2006 4:06:36 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

AR H-3 Prp/SepRC5007
S6 Tritium by Liquid Scint
5I CLIENT: HANFORD

Balance Id: 12445
Pipet #:
Sep1 DT/Tm Tech: 7-31-06 DM
Sep2 DT/Tm Tech:
Prep Tech:

AnalyDueDate: 08/29/2006

Batch: 6207533 **WATER** **pCi/L** **PM, Quote: HC , 57671**
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 H9TM1-1-AA J6G220140-1-SAMP 07/21/2006 11:13		AmtRec: 20ML,8XLP	#Containers: 9			Scr:	Alpha: 2.84E-03 uCi/Sa	Beta: 1.58E-03 uCi/Sa
9 H9TM2-1-AA J6G220140-2-SAMP 07/21/2006 09:54		AmtRec: 20ML,8XLP	#Containers: 9			Scr:	Alpha: 1.05E-02 uCi/Sa 1.4E-01L	Beta: 1.44E-02 uCi/Sa 5.0E-02L
10 H93GJ-1-AA-B J6G260000-533-BLK 07/20/2006 10:45		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
11 H93GJ-1-AC-C J6G260000-533-LCS 07/20/2006 10:45		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
12 H93GJ-1-AD-BX J6G260000-533-MBLK 07/20/2006 10:45		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
13 H93GJ-1-AE-CM J6G260000-533-MLCS 07/20/2006 10:45		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
14 H93GJ-1-AF-BN J6G260000-533-IBLK 07/20/2006 10:45		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

7/26/2006 4:06:37 PM

Sample Preparation/Analysis

AR H-3 Prp/SepRC5007
S6 Tritium by Liquid Scint
5I CLIENT: HANFORD

Balance Id: 12445
Pipet #:
Sep1 DT/Tm Tech: 7-31-06 DM
Sep2 DT/Tm Tech:
Prep Tech:

AnalyDueDate: 08/29/2006

Batch: 6207533 **pCi/L**
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15H93GJ-1-AG-BN								
J6G260000-533-IBLK								
07/20/2006 10:45	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:
16H93GJ-1-AH-BN								
J6G260000-533-IBLK								
07/20/2006 10:45	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:

Comments:

All Clients for Batch:
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, HC , 57671

H9RQJ1AA-SAMP Constituent List:

H-3	RDL:400	pCi/L	LCL:70	UCL:130	RPD:20
H93GJ1AA-BLK:					
H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:
H93GJ1AC-LCS:					
H-3	RDL:400	pCi/L	LCL:70	UCL:130	RPD:20
H93GJ1AD-MBLK:					
H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:
H93GJ1AE-MLCS:					
H-3	RDL:400	pCi/L	LCL:70	UCL:130	RPD:20
H93GJ1AF-IBLK:					
H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:
H93GJ1AG-IBLK:					
H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:
H93GJ1AH-IBLK:					
H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:

H9RQJ1AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
H93GJ1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Sample Preparation/Analysis

AR H-3 Prp/SepRC5007
S6 Tritium by Liquid Scint
5I CLIENT: HANFORD

Balance Id:

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech:

AnalyDueDate: 08/29/2006

Batch: 6207533 **pCi/L**
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

```
H93GJ1AC-LCS:
    Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
H93GJ1AD-MBLK:
    Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
H93GJ1AE-MLCS:
    Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
H93GJ1AF-IBLK:
    Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
H93GJ1AG-IBLK:
    Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
H93GJ1AH-IBLK:
    Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
```

Approved By _____ Date: _____

8/2/2006 11:29:36 AM

ICOC Fraction Transfer/Status Report

ByDate: 8/2/2005, 8/7/2006, Batch: '6207533', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
6207533						
AC		**CalcC**	**McDowellD**	7/31/2006 8:51:01		
SC			wagarr	IsBatched	7/26/2006 4:08:34 PM	ICOC_RADCALC v4.8.24
SC			McDowellD	InSep1	7/31/2006 8:51:01 AM	RICH-RC-5007 REVISION 6
SC			McDowellD	Sep1C	7/31/2006 11:05:08 AM	RICH-RC-5007 REVISION 6
SC			BlackCL	InCnt1	7/31/2006 1:20:28 PM	RICH-RD-0001 REVISION 3
SC			DAWKINSO	CalcC	8/1/2006 8:54:01 PM	RICH-RD-0001 REVISION 3
AC			**McDowellD**	7/31/2006 11:05:08		
AC			**McDowellD**	7/31/2006 1:18:18 PM		
AC			**BlackCL**	7/31/2006 1:20:28 PM		
AC			**DAWKINSO**	8/1/2006 8:54:01 PM		

AC: Accepting Entry; SC: Status Change

8/4/2006 1:08:29 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

DH UNat_Laser PrpRC5015
SS Total Uranium by KPA
5I CLIENT: HANFORD

Pipet #: 242

AnalyDueDate: 08/29/2006 wo 4969

Sep1 DT/Tm Tech:

Batch: 6207532 WATER ug/L PM, Quote: HC , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 6207529 FPS5, 6207532 DHSS, 6207533 ARS6, 6207537 BNTB,

Prep Tech: ,RutherfordJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 H9RVF-1-AE J6G210343-1-SAMP 07/20/2006 09:59	Final Vol 10.0 ml	25.90g,in AmtRec: 20ML,2X500ML,LP,2X4LP #Containers: 6					Scr: Alpha: -2.72E-03 uCi/Sa	Beta: 3.64E-03 uCi/Sa
2 H9RVV-1-AE J6G210350-1-SAMP 07/20/2006 08:50		25.50g,in AmtRec: 20ML,2X500MLP,LP,2X4LP #Containers: 6					Scr: Alpha: -6.56E-04 uCi/Sa	Beta: 1.73E-03 uCi/Sa
3 H9RV0-1-AE J6G210350-2-SAMP 07/20/2006 11:30		25.50g,in AmtRec: 20ML,2X500MLP,LP,2X4LP #Containers: 6					Scr: Alpha: 1.77E-03 uCi/Sa	Beta: -8.61E-04 uCi/Sa
4 H9TM7-1-AC J6G220141-1-SAMP 07/21/2006 10:29		25.30g,in AmtRec: 20ML,2X500MLP #Containers: 3					Scr: Alpha: -1.94E-04 uCi/Sa	Beta: 2.21E-04 uCi/Sa
5 H9TM7-1-AD-X J6G220141-1-DUP 07/21/2006 10:29		25.30g,in AmtRec: 20ML,2X500MLP #Containers: 3					Scr: Alpha: -1.94E-04 uCi/Sa	Beta: 2.21E-04 uCi/Sa
6 H9TM8-1-AC J6G220141-2-SAMP 07/21/2006 10:29		25.30g,in AmtRec: 20ML,2X500MLP #Containers: 3					Scr: Alpha: -1.07E-04 uCi/Sa	Beta: 3.15E-05 uCi/Sa
7 H9TM8-1-AD-S J6G220141-2-MS 07/21/2006 10:29		25.20g,in AmtRec: 20ML,2X500MLP	UNSF3253 07/25/06,pd 03/22/05,r #Containers: 3				Scr: Alpha: -1.07E-04 uCi/Sa	Beta: 3.15E-05 uCi/Sa

8/4/2006 1:08:32 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

DH UNat_Laser PrpRC5015
SS Total Uranium by KPA
5I CLIENT: HANFORD

Pipet #: 242

AnalyDueDate: 08/29/2006

Sep1 DT/Tm Tech:

Batch: 6207532 WATER ug/L PM, Quote: HC , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,RutherfordJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 H9TM9-1-AC J6G220141-3-SAMP 07/21/2006 12:11	F.V. 10.0ml	25.50g,in AmtRec: 20ML,2X500MLP	#Containers: 3			Scr:	Alpha: -1.42E-04 uCi/Sa	Beta: 2.80E-04 uCi/Sa
9 H93GG-1-AA-B J6G260000-532-BLK 07/21/2006 10:29		24.60g,in AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
10 H93GG-1-AC-C J6G260000-532-LCS 07/21/2006 10:29		26.30g,in AmtRec:	UNSF3254 07/27/06,pd 03/22/05,r #Containers: 1			Scr:	Alpha:	Beta:
11 H93GG-1-AD-C J6G260000-532-LCS 07/21/2006 10:29		25.00g,in AmtRec:	UNSC1245 07/20/06,pd 04/28/06,r #Containers: 1			Scr:	Alpha:	Beta:

Comments: pH <2.0 mo 8/4/06

All Clients for Batch:
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, HC , 57671

H9RVF1AE-SAMP Constituent List:

Uranium	RDL:1.44E-01	ug/L	LCL:	UCL:	RPD:

H9TM81AD-MS:

H93GG1AA-BLK:

Uranium	RDL:1.44E-01	ug/L	LCL:	UCL:	RPD:

H93GG1AC-LCS:

Uranium	RDL:0.144343	ug/L	LCL:70	UCL:130	RPD:20

Sample Preparation/Analysis

DH UNat_Laser PrpRC5015
SS Total Uranium by KPA
5I CLIENT: HANFORD

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 08/29/2006

Sep1 DT/Tm Tech:

Batch: 6207532 ug/L

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,RutherfordJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

```
H93GG1AD-LCS:
 Uranium     RDL:0.144343    ug/L     LCL:70     UCL:130     RPD:20
H9RVF1AE-SAMP Calc Info:
    Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
H9TM81AD-MS:
    Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
H93GG1AA-BLK:
    Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
H93GG1AC-LCS:
    Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
H93GG1AD-LCS:
    Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```

Approved By _____ Date: _____

8/21/2006 12:57:37 PM

ICOC Fraction Transfer/Status Report

ByDate: 8/21/2005, 8/26/2006, Batch: '6207532', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
6207532						
AC		**Cnt1C**	**RutherfordJ**	8/4/2006 12:56:25 PM		
SC			wagarr	IsBatched	7/26/2006 4:08:34 PM	ICOC_RADCALC v4.8.24
SC			RutherfordJ	InPrep	8/4/2006 12:56:25 PM	RICH-RC-5015 REVISION 4
SC			ScottM	InPrep2	8/7/2006 6:48:03 AM	RICH-RC-5015 REVISION 4
SC			ScottM	Prep2C	8/8/2006 7:00:13 AM	RICH-RC-5015 REVISION 4
SC			BarbosaH	Cnt1C	8/18/2006 2:05:54 PM	RICH-RC-5058 REVISION 7
AC			**ScottM**	8/7/2006 6:48:03 AM		Revision 4
AC			**ScottM**	8/8/2006 7:00:13 AM		
AC			**BarbosaH**	8/18/2006 2:05:54 PM		

AC: Accepting Entry; SC: Status Change